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NEWS 2	JUL 02	LMEDLINE coverage updated
NEWS 3	JUL 02	SCISEARCH enhanced with complete author names
NEWS 4	JUL 02	CHEMCATS accession numbers revised
NEWS 5	JUL 02	CA/CAplus enhanced with utility model patents from China
NEWS 6	JUL 16	CAplus enhanced with French and German abstracts
NEWS 7	JUL 18	CA/CAplus patent coverage enhanced
NEWS 8	JUL 26	USPATFULL/USPAT2 enhanced with IPC reclassification
NEWS 9	JUL 30	USGENE now available on STN
NEWS 10	AUG 06	CAS REGISTRY enhanced with new experimental property tags
NEWS 11	AUG 06	BEILSTEIN updated with new compounds
NEWS 12	AUG 06	FSTA enhanced with new thesaurus edition
NEWS 13	AUG 13	CA/CAplus enhanced with additional kind codes for granted patents
NEWS 14	AUG 20	CA/CAplus enhanced with CAS indexing in pre-1907 records
NEWS 15	AUG 27	Full-text patent databases enhanced with predefined patent family display formats from INPADOCDB
NEWS 16	AUG 27	USPATOLD now available on STN
NEWS 17	AUG 28	CAS REGISTRY enhanced with additional experimental spectral property data
NEWS 18	SEP 07	STN AnaVist, Version 2.0, now available with Derwent World Patents Index
NEWS 19	SEP 13	FORIS renamed to SOFIS
NEWS 20	SEP 13	INPADOCDB enhanced with monthly SDI frequency
NEWS 21	SEP 17	CA/CAplus enhanced with printed CA page images from 1967-1998
NEWS 22	SEP 17	CAplus coverage extended to include traditional medicine patents
NEWS 23	SEP 24	EMBASE, EMBAL, and LEMBASE reloaded with enhancements

NEWS EXPRESS 19 SEPTEMBER 2007: CURRENT WINDOWS VERSION IS V8.2,
CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 19 SEPTEMBER 2007.

NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS LOGIN	Welcome Banner and News Items
NEWS IPC8	For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that specific topic.

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* * * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * * *

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=> File .Gerry2MBCE
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
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=> S (Stem(A)Cell)(S)(Stimulator OR differentiator) AND pd<=20040415
   2 FILES SEARCHED...
L1         220 (STEM(A) CELL)(S)(STIMULATOR OR DIFFERENTIATOR) AND PD<=20040415

=> DUP Rem L1
PROCESSING COMPLETED FOR L1
L2          103 DUP REM L1 (117 DUPLICATES REMOVED)
                ANSWERS '1-58' FROM FILE MEDLINE
                ANSWERS '59-80' FROM FILE BIOSIS
                ANSWERS '81-96' FROM FILE CAPLUS
                ANSWERS '97-103' FROM FILE EMBASE

=> S L2 AND (beta(A)cell OR Langerhan?)
L3           2 L2 AND (BETA(A) CELL OR LANGERHAN?)

=> D ibib abs L3 1,2

L3   ANSWER 1 OF 2     MEDLINE on STN
ACCESSION NUMBER:   2004626505     MEDLINE
DOCUMENT NUMBER:    PubMed ID: 15601372
TITLE:              A perspective on pancreatic stem/progenitor cells.
AUTHOR:             Habener Joel F
CORPORATE SOURCE:   Laboratory of Molecular Endocrinology, Massachusetts
                    General Hospital, 55 Fruit Street - WEL 320, Boston, MA
                    02114, USA.. jhabener@partners.org
SOURCE:             Pediatric diabetes, (2004) Vol. 5 Suppl 2, pp.
                    29-37.  Ref: 119
                    Journal code: 100939345. ISSN: 1399-543X.
PUB. COUNTRY:       Denmark
DOCUMENT TYPE:      Journal; Article; (JOURNAL ARTICLE)
                    (RESEARCH SUPPORT, NON-U.S. GOV'T)
                    (RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
                    General Review; (REVIEW)
LANGUAGE:           English
FILE SEGMENT:       Priority Journals
ENTRY MONTH:        200505
ENTRY DATE:         Entered STN: 20 Dec 2004
                    Last Updated on STN: 11 May 2005
                    Entered Medline: 10 May 2005
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AB The prevalence of both type 1 and type 2 diabetes mellitus is increasing throughout the world along with the ensuant morbidity and early mortality because of premature microvascular and macrovascular disease. Current insulin and drug therapies control diabetes, but do not cure it. Cell-based therapies offer the possibilities of a permanent cure for diabetes. Recently, success in the transplantation of pancreatic islets in the livers of type 1 diabetics has afforded the opportunity for a potential cure. However, the severe shortage of donor islets for transplantation limits the usefulness of this therapy. One approach is to exploit the use of stem cells, either embryo-derived or adult tissue-derived, as substrates to create islet tissue suitable for transplantation. Cells isolated from embryo blastocysts and from adult pancreas, liver, and bone marrow can be expanded extensively in vitro and differentiated into islet-like clusters that produce insulin, and, in some instances, can achieve glycemic control when transplanted into streptozotocin-induced diabetic mice. It is, now, also possible to envision the direct systemic administration of stem cells that would home in on and regenerate injured islets, or to administer stem cell stimulators that would enhance endogenous pancreatic stem cells to expand and differentiate into functional, insulin-producing beta-cells. This perspective discusses the potential applications of cellular medicines, in the new discipline of regenerative medicine, to achieve a cure for diabetes.

L3 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:837240 CAPLUS
DOCUMENT NUMBER: 139:335101
TITLE: Method for isolating and measuring proliferation of long-term label retaining cells and stem cells
INVENTOR(S): Hellerstein, Marc K.; Kim, Sylvia Jeewon
PATENT ASSIGNEE(S): The Regents of the University of California, USA
SOURCE: PCT Int. Appl., 62 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2003087314	A2	20031023	WO 2003-US10554		20030404 <--
WO 2003087314	A3	20050224			
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW					
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
CA 2503681	A1	20031023	CA 2003-2503681		20030404 <--
AU 2003234688	A1	20031027	AU 2003-234688		20030404 <--
US 2003224420	A1	20031204	US 2003-407435		20030404 <--
PRIORITY APPLN. INFO.:			US 2002-370599P	P	20020405
			WO 2003-US10554	W	20030404

AB This invention relates to a method for separating long-term label retaining cells or stem cells. In particular, this invention relates to a method for separating long-term label retaining cells and/or stem cells from tissues or individuals and for measuring proliferation rates of long-term label

retaining cells and stem cells, as well as determining clonal expansion (proliferative history) of cell lineages from the tissues of the individual. The cells may be double-labeled with a cell-lineage marking label and isotopically labeled DNA synthesis precursor prior to phys. separation A double-labeling approach was developed using bromodeoxyuridine (BrdU) as a marker for label retaining cells and 2H2O to determine their proliferation rates using gas chromatog.-mass spectrometry. Rats were given BrdU in drinking water and 2H2O i.p. and in drinking water. Label-retaining cells were isolated from colon epithelial cells and collected by FACS. The DNA was isolated, hydrolyzed, and the pentose-tetraacetate derivative of the deoxyribose of dA was prepared for GC/MS anal. for determining cell proliferation.

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FILE 'MEDLINE' ENTERED AT 12:19:50 ON 24 SEP 2007
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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-0.78	-0.78

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FILE 'MEDLINE, BIOSIS, CAPLUS, EMBASE' ENTERED AT 10:32:53 ON 24 SEP 2007
L1 220 S (STEM(A)CELL)(S)(STIMULATOR OR DIFFERENTIATOR) AND PD<=200404
L2 103 DUP REM L1 (117 DUPLICATES REMOVED)
L3 2 S L2 AND (BETA(A)CELL OR LANGERHAN?)

=> D Ti L2 1-103

L2 ANSWER 1 OF 103 MEDLINE on STN DUPLICATE 1
TI Extracellular nucleotides are potent stimulators of human

hematopoietic stem cells in vitro and in vivo.

L2 ANSWER 2 OF 103 MEDLINE on STN DUPLICATE 2
TI Improved detection of clinically significant host-reactive antigens prior to HLA-identical sibling peripheral blood stem cell transplantation using a dendritic cell-based helper T-lymphocyte precursor assay.

L2 ANSWER 3 OF 103 MEDLINE on STN DUPLICATE 3
TI A perspective on pancreatic stem/progenitor cells.

L2 ANSWER 4 OF 103 MEDLINE on STN DUPLICATE 4
TI Human CD34+ hematopoietic stem cells capable of multilineage engrafting NOD/SCID mice express flt3: distinct flt3 and c-kit expression and response patterns on mouse and candidate human hematopoietic stem cells.

L2 ANSWER 5 OF 103 MEDLINE on STN DUPLICATE 5
TI The competitive nature of HOXB4-transduced HSC is limited by PBX1: the generation of ultra-competitive stem cells retaining full differentiation potential.

L2 ANSWER 6 OF 103 MEDLINE on STN DUPLICATE 7
TI Dendritic cells (DCs) in rheumatoid arthritis (RA): progenitor cells and soluble factors contained in RA synovial fluid yield a subset of myeloid DCs that preferentially activate Th1 inflammatory-type responses.

L2 ANSWER 7 OF 103 MEDLINE on STN DUPLICATE 8
TI Management of osteochondral injuries of the knee.

L2 ANSWER 8 OF 103 MEDLINE on STN DUPLICATE 9
TI High-resolution tracking of cell division suggests similar cell cycle kinetics of hematopoietic stem cells stimulated in vitro and in vivo.

L2 ANSWER 9 OF 103 MEDLINE on STN DUPLICATE 10
TI Stromal cell-derived factor-1 (SDF-1) acts together with thrombopoietin to enhance the development of megakaryocytic progenitor cells (CFU-MK).

L2 ANSWER 10 OF 103 MEDLINE on STN DUPLICATE 11
TI Identification of cord blood dendritic cells as an immature CD11c- population.

L2 ANSWER 11 OF 103 MEDLINE on STN DUPLICATE 12
TI Expression and regulation of the thrombopoietin receptor variants MPLP and MPLK in PBMC.

L2 ANSWER 12 OF 103 MEDLINE on STN DUPLICATE 13
TI Cord blood mononuclear cell transformation assay for screening for the presence of Epstein-Barr virus.

L2 ANSWER 13 OF 103 MEDLINE on STN DUPLICATE 14
TI The in vitro effects of all-trans-retinoic acid and hematopoietic growth factors on the clonal growth and self-renewal of blast stem cells in acute promyelocytic leukemia.

L2 ANSWER 14 OF 103 MEDLINE on STN DUPLICATE 15
TI Studies of a 35 KDa substance from human fetal liver on the regulation of hematopoiesis.

L2 ANSWER 15 OF 103 MEDLINE on STN DUPLICATE 16
TI The FLT3 ligand is a direct and potent stimulator of the growth of primitive and committed human CD34+ bone marrow progenitor cells in vitro.

L2 ANSWER 16 OF 103 MEDLINE on STN DUPLICATE 17

TI The FLT3 ligand potently and directly stimulates the growth and expansion of primitive murine bone marrow progenitor cells in vitro: synergistic interactions with interleukin (IL) 11, IL-12, and other hematopoietic growth factors.

L2 ANSWER 17 OF 103 MEDLINE on STN DUPLICATE 18
TI The molecular specificity of action of the tetrapeptide acetyl-N-Ser-Asp-Lys-Pro (AcSDKP) in the control of hematopoietic stem cell proliferation.

L2 ANSWER 18 OF 103 MEDLINE on STN DUPLICATE 19
TI Cytotoxic lymphocyte maturation factor (interleukin 12) is a synergistic growth factor for hematopoietic stem cells.

L2 ANSWER 19 OF 103 MEDLINE on STN DUPLICATE 20
TI The in vivo effects of steel factor on natural killer lineage cells in murine spleen and bone marrow.

L2 ANSWER 20 OF 103 MEDLINE on STN DUPLICATE 21
TI Ways of minimising hematopoietic damage induced by radiation and cytostatic drugs--the possible role of inhibitors.

L2 ANSWER 21 OF 103 MEDLINE on STN DUPLICATE 22
TI Inhibitory effects of AcSDKP on the mixed lymphocyte reaction (MLR). Part I. MLR with mouse spleen cells.

L2 ANSWER 22 OF 103 MEDLINE on STN DUPLICATE 23
TI The mechanism of action of the tetrapeptide acetyl-N-Ser-Asp-Lys-Pro (AcSDKP) in the control of haematopoietic stem cell proliferation.

L2 ANSWER 23 OF 103 MEDLINE on STN DUPLICATE 24
TI Protection from arabinofuranosylcytosine and n-mustard-induced myelotoxicity using hemoregulatory peptide pGlu-Glu-Asp-Cys-Lys monomer and dimer.

L2 ANSWER 24 OF 103 MEDLINE on STN DUPLICATE 25
TI Haemoprotection against cytostatic drugs by stem cell inhibition.

L2 ANSWER 25 OF 103 MEDLINE on STN DUPLICATE 26
TI Haematopoietic stem cell proliferation regulators investigated using an in vitro assay.

L2 ANSWER 26 OF 103 MEDLINE on STN DUPLICATE 27
TI [The regulation of hematopoietic stem cell proliferation and differentiation (CFU-S) during antigenic exposure]. Reguliatsiia proliferatsii i differentsirovki gemopoeticheskikh stvolovykh kletok (KOEs) pri antigennom vozdeistvii.

L2 ANSWER 27 OF 103 MEDLINE on STN DUPLICATE 28
TI Regulation of haematopoietic stem cell proliferation by stimulatory factors produced by murine fetal and adult liver.

L2 ANSWER 28 OF 103 MEDLINE on STN DUPLICATE 29
TI Enhanced myelopoiesis in long-term cultures of human bone marrow pretreated with recombinant granulocyte-macrophage colony-stimulating factor.

L2 ANSWER 29 OF 103 MEDLINE on STN DUPLICATE 30
TI The effects of recombinant CSF-1 on the blast cells of acute myeloblastic leukemia in suspension culture.

L2 ANSWER 30 OF 103 MEDLINE on STN DUPLICATE 31

TI A stimulator of mouse stem cell proliferation produced by human regenerating bone marrow.

L2 ANSWER 31 OF 103 MEDLINE on STN DUPLICATE 32
TI Production of human pluripotent progenitor cell colony stimulating activity (CFU-GEMMCSA) in patients with myelodysplastic syndromes.

L2 ANSWER 32 OF 103 MEDLINE on STN DUPLICATE 33
TI A stimulator of murine haemopoietic stem cell proliferation produced by human fetal liver cells.

L2 ANSWER 33 OF 103 MEDLINE on STN DUPLICATE 34
TI Controls on the cell cycle.

L2 ANSWER 34 OF 103 MEDLINE on STN DUPLICATE 35
TI Quantitative problems in bone marrow transplantation by peripheral blood stem cells.

L2 ANSWER 35 OF 103 MEDLINE on STN DUPLICATE 36
TI Vitamin C and thiol reagents promote the in vitro growth of murine granulocyte/macrophage progenitor cells by neutralizing endogenous inhibitor(s).

L2 ANSWER 36 OF 103 MEDLINE on STN DUPLICATE 37
TI Comparison of haemopoiesis in young and old mice.

L2 ANSWER 37 OF 103 MEDLINE on STN DUPLICATE 38
TI Cyclic AMP response to various haemopoietic regulators.

L2 ANSWER 38 OF 103 MEDLINE on STN DUPLICATE 39
TI Spatial organisation of CFU-S proliferation regulators in the mouse femur.

L2 ANSWER 39 OF 103 MEDLINE on STN DUPLICATE 40
TI The cellular specificity of haemopoietic stem cell proliferation regulators.

L2 ANSWER 40 OF 103 MEDLINE on STN DUPLICATE 41
TI Effect of a neutrophilia-inducing tumor on hemopoietic stem cells in mice.

L2 ANSWER 41 OF 103 MEDLINE on STN DUPLICATE 42
TI Lithium stimulates the recovery of granulopoiesis following acute radiation injury.

L2 ANSWER 42 OF 103 MEDLINE on STN DUPLICATE 43
TI Injury and regeneration in rat small intestine cells after exposure to neutrons.

L2 ANSWER 43 OF 103 MEDLINE on STN DUPLICATE 44
TI Stimulation of haemopoietic stem cell proliferation: characteristics of the stimulator-producing cells.

L2 ANSWER 44 OF 103 MEDLINE on STN DUPLICATE 48
TI The relationship of G0 to the cell cycle of haemopoietic spleen colony-forming cells.

L2 ANSWER 45 OF 103 MEDLINE on STN DUPLICATE 49
TI The regulation of hemopoiesis in long-term bone marrow cultures. II. Stimulation and inhibition of stem cell proliferation.

L2 ANSWER 46 OF 103 MEDLINE on STN DUPLICATE 50
TI Sources of haemopoietic stem cell proliferation: stimulators and inhibitors.

L2 ANSWER 47 OF 103 MEDLINE on STN DUPLICATE 52
TI Current concepts of abnormal stem cell proliferation in human disease.

L2 ANSWER 48 OF 103 MEDLINE on STN DUPLICATE 53
TI Response of neutropenia and anaemia to immunosuppressive therapy: report and bone marrow culture studies.

L2 ANSWER 49 OF 103 MEDLINE on STN DUPLICATE 55
TI Production of stem cell proliferation stimulators and inhibitors by haemopoietic cell suspensions.

L2 ANSWER 50 OF 103 MEDLINE on STN DUPLICATE 56
TI The effect of E type prostaglandins on the proliferation of haemopoietic stem cells in vivo.

L2 ANSWER 51 OF 103 MEDLINE on STN DUPLICATE 57
TI A stimulator of stem cell proliferation in regenerating bone marrow.

L2 ANSWER 52 OF 103 MEDLINE on STN DUPLICATE 58
TI Granulopoiesis in severe congenital neutropenia.

L2 ANSWER 53 OF 103 MEDLINE on STN
TI Influence of serum from liver-damaged rats on differentiation tendency of bone marrow-derived stem cells.

L2 ANSWER 54 OF 103 MEDLINE on STN
TI Autologous peripheral blood stem cell transplantation for myocardial regeneration: a novel strategy for cell collection and surgical injection.

L2 ANSWER 55 OF 103 MEDLINE on STN
TI Clinical study of single-dose G-CSF in mobilization and reconstruction of allogeneic peripheral blood stem cell transplantation.

L2 ANSWER 56 OF 103 MEDLINE on STN
TI [Effect of sera from children with acute lymphoblastic leukemia on the morphology of granulocyte-macrophage colonies grown from murine bone marrow cells and the cells of murine myelomonocytic leukemia WEHI 3B D+]. Wplyw surowic dzieci w przebiegu ostrej bialaczki limfoblastycznej na morfologie kolonii granulocytarno-makrofagowych (GM) powstalych z komorek macierzystych szpiku myszy (CFC) oraz komorek mysiej bialaczki mielomonocytarnej WEHI 3B D+.

L2 ANSWER 57 OF 103 MEDLINE on STN
TI Feedback regulators in normal and tumour tissues.

L2 ANSWER 58 OF 103 MEDLINE on STN
TI Prostaglandin E2 as stimulator of haemopoietic stem cell proliferation.

L2 ANSWER 59 OF 103 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 6
TI Osteoblastic differentiation of mesenchymal stem cells by mumie extract.

L2 ANSWER 60 OF 103 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 45
TI INTERFERON ITS ROLE IN RADIOPROTECTION AS A HEMATOPOIETIC STEM CELL STIMULATOR.

L2 ANSWER 61 OF 103 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 46

TI INTERRELATIONSHIPS OF INHIBITOR AND STIMULATOR IN THE REGULATION OF HEMOPOIETIC STEM CELL PROLIFERATION.

L2 ANSWER 62 OF 103 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 47
TI EFFECTS OF CELL CONCENTRATIONS ON THE SURVIVAL AND RE POPULATION OF HEMOPOIETIC STEM CELLS IN IRRADIATED BONE MARROW CELL CULTURE IN-VITRO.

L2 ANSWER 63 OF 103 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 51
TI ACTIONS OF THE HEMOPOIETIC STEM CELL PROLIFERATION INHIBITOR.

L2 ANSWER 64 OF 103 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 59
TI PROSTAGLANDIN E-2 AS STIMULATOR OF HEMOPOIETIC STEM CELL PROLIFERATION.

L2 ANSWER 65 OF 103 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
TI Influence of Glial Cell Line-Derived Neurotrophic Factor (GDNF) on Spermatogonial Stem Cells.

L2 ANSWER 66 OF 103 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
TI Surgical injection of autologous, G-CSF mobilized, peripheral blood CD133+ cells for myocardial regeneration in patients undergoing coronary artery bypass grafting.

L2 ANSWER 67 OF 103 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
TI Hman CD34+ Hematopoietic Stem Cells Capable of Multilineage Engrafting NOD/SCID Mice Express Flt3: Evidence for Distinct Flt3 and C-Kit Expression and Response Patterns on Mouse and Candidate Human Stem Cells.

L2 ANSWER 68 OF 103 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
TI Non-Availability of Clinical Grade Reagents Prohibits the Clinical Application of In Vitro Cultured Peptide-Specific Cytotoxic T Lymphocytes(CTL).

L2 ANSWER 69 OF 103 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
TI Allogeneic mesenchymal stem cells persist and function in an immunocompetent non-human primate model.

L2 ANSWER 70 OF 103 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
TI Bone marrow cultures for developing suppressor and stimulator cells for research and therapeutic applications.

L2 ANSWER 71 OF 103 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
TI An orally available small molecule stimulator of bone marrow stem cells accelerates postchemotherapy recovery of peripheral neutrophils and platelets.

L2 ANSWER 72 OF 103 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
TI TUMOR NECROSIS FACTOR-ALPHA IS A POTENT STIMULATOR OF A VERY PRIMITIVE HEMATOPOIETIC STEM CELL IN LONG-TERM BONE MARROW CULTURES.

L2 ANSWER 73 OF 103 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
TI ABSENCE OF HEMOPOIETIC STEM CELL PROLIFERATION INHIBITOR PRODUCTION BY BONE MARROW MACROPHAGES IN AGED MICE.

L2 ANSWER 74 OF 103 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
TI STUDY OF CELLS PARTICIPATING IN THE PRODUCTION OF COLONY-FORMING UNITS IN THE SPLEEN USING COMBINED METHODS OF BONE MARROW FRACTIONATION.

L2 ANSWER 75 OF 103 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
TI A STIMULATOR OF MURINE HEMOPOIETIC STEM CELL PROLIFERATION PRODUCED BY HUMAN FETAL LIVER CELLS.

L2 ANSWER 76 OF 103 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
TI MURINE MALARIA DECREASES HEMOPOIETIC STEM CELLS AND TOTAL BONE MARROW CELLULARITY.

L2 ANSWER 77 OF 103 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
TI EFFECT OF HEMOPOIETIC STEM-CELL PROLIFERATION REGULATORS ON EARLY AND LATE SPLEEN COLONY-FORMING CELLS.

L2 ANSWER 78 OF 103 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
TI TREATMENT OF APLASTIC ANEMIA WITH METHENOLONE STANOZOLOL AND NANDROLONE 130 CASES.

L2 ANSWER 79 OF 103 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
TI EXPERIMENTAL AND CLINICAL INVESTIGATIONS ON STEM CELL TAKE AND COLONY FORMATION.

L2 ANSWER 80 OF 103 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
TI EFFECTS OF IRRADIATION ON STEM CELL RESPONSE TO DIFFERENTIATION INHIBITORS IN THE PLANARIAN DUGESIA-ETRUSCA.

L2 ANSWER 81 OF 103 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 54
TI Production of stem cell proliferation regulators by fractionated hemopoietic cell suspensions

L2 ANSWER 82 OF 103 CAPLUS COPYRIGHT 2007 ACS on STN
TI Inhibitor and stimulator of stem cell proliferation and uses thereof

L2 ANSWER 83 OF 103 CAPLUS COPYRIGHT 2007 ACS on STN
TI Asymmetric division and lineage commitment at the level of hematopoietic stem cells: Inference from differentiation in daughter cell and granddaughter cell pairs

L2 ANSWER 84 OF 103 CAPLUS COPYRIGHT 2007 ACS on STN
TI Method for isolating and measuring proliferation of long-term label retaining cells and stem cells

L2 ANSWER 85 OF 103 CAPLUS COPYRIGHT 2007 ACS on STN
TI Tissue-restricted T cell alloresponses across HLA barriers: selection and identification of leukemia-restricted CTL in HLA-mismatched stimulator-responder pairs

L2 ANSWER 86 OF 103 CAPLUS COPYRIGHT 2007 ACS on STN
TI Quiescent CD34+ early erythroid progenitors are resistant to several erythropoietic 'inhibitory' cytokines; role of FLIP

L2 ANSWER 87 OF 103 CAPLUS COPYRIGHT 2007 ACS on STN
TI Protein and cDNA sequences of a novel chicken leukemia inhibitory factor (LIF)

L2 ANSWER 88 OF 103 CAPLUS COPYRIGHT 2007 ACS on STN
TI Small GTP-binding protein GDP dissociation stimulator gene knockout mouse for study of antiapoptotic cell survival signaling

L2 ANSWER 89 OF 103 CAPLUS COPYRIGHT 2007 ACS on STN
TI Method for regulating the differentiation/proliferation of hematopoietic stem cells with differentiation-repressing gene and blood cell-stimulators

L2 ANSWER 90 OF 103 CAPLUS COPYRIGHT 2007 ACS on STN
TI In vitro expansion of hematopoietic stem cells using an engineered hybrid cytokine of interleukin-6 and its receptor.

L2 ANSWER 91 OF 103 CAPLUS COPYRIGHT 2007 ACS on STN
TI Inhibitor and stimulator of stem cell proliferation and uses thereof

L2 ANSWER 92 OF 103 CAPLUS COPYRIGHT 2007 ACS on STN
TI Methods for introducing genes into hematopoietic stem cells in the presence of factors capable of stimulating gp130 and/or c-kit

L2 ANSWER 93 OF 103 CAPLUS COPYRIGHT 2007 ACS on STN
TI Functions of IL-3

L2 ANSWER 94 OF 103 CAPLUS COPYRIGHT 2007 ACS on STN
TI Compositions for stimulating growth of hematopoietic stem cells committed to differentiate to megakaryocytes

L2 ANSWER 95 OF 103 CAPLUS COPYRIGHT 2007 ACS on STN
TI Purification and identification of a hematopoietic stem cell proliferation stimulator from human fetal liver

L2 ANSWER 96 OF 103 CAPLUS COPYRIGHT 2007 ACS on STN
TI Characterization of stimulatory activity for human pluripotent stem cells (CFUGEMM)

L2 ANSWER 97 OF 103 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights reserved on STN
TI Manipulation of the stem cell as a target for hematologic malignancies.

L2 ANSWER 98 OF 103 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights reserved on STN
TI [Disturbed regulation of the stem cell proliferation in a patient with erythroblasto- and reticulocytopenia].
DYSREGULATION DER STAMMZELL-PROLIFERATION. NACHWEIS BEI EINEM PATIENTEN MIT ERYTHROBLASTO- UND RETIKULOZYTOPENIE.

L2 ANSWER 99 OF 103 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights reserved on STN
TI Purification and biochemical characterisation of a CFU-S proliferation inhibitor: Preliminary results.

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TI Regulation of pluripotent stem cell proliferation and differentiation: The role of long-range humoral factors.

L2 ANSWER 101 OF 103 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights reserved on STN
TI Effects of radiations on bone marrow.

L2 ANSWER 102 OF 103 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights reserved on STN
TI [Kinetics and regulatory mechanisms of granulocyte turnover]. KINETIK UND REGULATIONSMECHANISMEN DES GRANULOZYTENUMSATZES.

L2 ANSWER 103 OF 103 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights reserved on STN
TI Hematopoietic stem cell regulation. II. Chronic effects of hypoxic hypoxia on CFU kinetics.

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     FILE 'MEDLINE, BIOSIS, CAPLUS, EMBASE' ENTERED AT 10:32:53 ON 24 SEP 2007
L1   220 S (STEM(A)CELL)(S)(STIMULATOR OR DIFFERENTIATOR) AND PD<=200404
L2   103 DUP REM L1 (117 DUPLICATES REMOVED)
L3   2 S L2 AND (BETA(A)CELL OR LANGERHAN?)

=> D ibib abs L2 3,8,9,16,19,25,27,29,30,34,43,46,49,51,58,60,66,71,79,82,95,100

L2 ANSWER 3 OF 103 MEDLINE on STN DUPLICATE 3
ACCESSION NUMBER: 2004626505 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15601372
TITLE: A perspective on pancreatic stem/progenitor cells.
AUTHOR: Habener Joel F
CORPORATE SOURCE: Laboratory of Molecular Endocrinology, Massachusetts General Hospital, 55 Fruit Street - WEL 320, Boston, MA 02114, USA.. jhabener@partners.org
SOURCE: Pediatric diabetes, (2004) Vol. 5 Suppl 2, pp. 29-37. Ref: 119
Journal code: 100939345. ISSN: 1399-543X.
PUB. COUNTRY: Denmark
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
General Review; (REVIEW)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200505
ENTRY DATE: Entered STN: 20 Dec 2004
Last Updated on STN: 11 May 2005
Entered Medline: 10 May 2005
AB The prevalence of both type 1 and type 2 diabetes mellitus is increasing throughout the world along with the ensuant morbidity and early mortality because of premature microvascular and macrovascular disease. Current insulin and drug therapies control diabetes, but do not cure it. Cell-based therapies offer the possibilities of a permanent cure for diabetes. Recently, success in the transplantation of pancreatic islets in the livers of type 1 diabetics has afforded the opportunity for a potential cure. However, the severe shortage of donor islets for transplantation limits the usefulness of this therapy. One approach is to exploit the use of stem cells, either embryo-derived or adult tissue-derived, as substrates to create islet tissue suitable for transplantation. Cells isolated from embryo blastocysts and from adult pancreas, liver, and bone marrow can be expanded extensively in vitro and differentiated into islet-like clusters that produce insulin, and, in some instances, can achieve glycemic control when transplanted into streptozotocin-induced diabetic mice. It is, now, also possible to envision the direct systemic administration of stem cells that would home in on and regenerate injured islets, or to administer stem cell stimulators that would enhance endogenous pancreatic stem cells to expand and differentiate into functional, insulin-producing beta-cells. This perspective discusses the potential applications of cellular medicines, in the new discipline of regenerative medicine, to achieve a cure for diabetes.

L2 ANSWER 8 OF 103 MEDLINE on STN DUPLICATE 9
ACCESSION NUMBER: 2000115167 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10648396
TITLE: High-resolution tracking of cell division suggests similar cell cycle kinetics of hematopoietic stem cells stimulated in vitro and in vivo.
AUTHOR: Oostendorp R A; Audet J; Eaves C J
CORPORATE SOURCE: Terry Fox Laboratory, British Columbia Cancer Agency, Vancouver, BC, Canada.
CONTRACT NUMBER: P01-HL55435 (NHLBI)
SOURCE: Blood, (2000 Feb 1) Vol. 95, No. 3, pp. 855-62.
Journal code: 7603509. ISSN: 0006-4971.
PUB. COUNTRY: United States
DOCUMENT TYPE: (COMPARATIVE STUDY)
Journal; Article; (JOURNAL ARTICLE)

(RESEARCH SUPPORT, NON-U.S. GOV'T)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 200002
ENTRY DATE: Entered STN: 9 Mar 2000
Last Updated on STN: 9 Mar 2000
Entered Medline: 24 Feb 2000

AB The kinetics of proliferation of primitive murine bone marrow (BM) cells stimulated either in vitro with growth factors (fetal liver tyrosine kinase ligand 3 [FL], Steel factor [SF], and interleukin-11 [IL-11], or hyper-IL-6) or in vivo by factors active in myeloablated recipients were examined. Cells were first labeled with 5- and 6-carboxyfluorescein diacetate succinimidyl ester (CFSE) and then incubated overnight prior to isolating CFSE(+) cells. After 2 more days in culture, more than 90% of the in vivo lymphomyeloid repopulating activity was associated with the most fluorescent CFSE(+) cells (ie, cells that had not yet divided), although this accounted for only 25% of the repopulating stem cells measured in the CFSE(+) "start" population. After a total of 4 days in culture (1 day later), 15-fold more stem cells were detected (ie, 4-fold more than the day 1 input number), and these had become (and thereafter remained) exclusively associated with cells that had divided at least once in vitro. Flow cytometric analysis of CFSE(+) cells recovered from the BM of transplanted mice indicated that these cells proliferated slightly faster (up to 5 divisions completed within 2 days and up to 8 divisions completed within 3 days in vivo versus 5 and 7 divisions, respectively, in vitro). FL, SF, and ligands which activate gp130 are thus efficient stimulators of transplantable stem cell self-renewal divisions in vitro. The accompanying failure of these cells to accumulate rapidly indicates important changes in their engraftment potential independent of accompanying changes in their differentiation status.

L2 ANSWER 9 OF 103 MEDLINE on STN DUPLICATE 10
ACCESSION NUMBER: 2000115155 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10648384
TITLE: Stromal cell-derived factor-1 (SDF-1) acts together with thrombopoietin to enhance the development of megakaryocytic progenitor cells (CFU-MK).
AUTHOR: Hodohara K; Fujii N; Yamamoto N; Kaushansky K
CORPORATE SOURCE: Division of Hematology, University of Washington School of Medicine, Seattle 98195-7710, USA.
CONTRACT NUMBER: CA31615 (NCI)
DK 49855 (NIDDK)
SOURCE: Blood, (2000 Feb 1) Vol. 95, No. 3, pp. 769-75.
Journal code: 7603509. ISSN: 0006-4971.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 200002
ENTRY DATE: Entered STN: 9 Mar 2000
Last Updated on STN: 9 Mar 2000
Entered Medline: 24 Feb 2000

AB Stromal cell-derived factor-1 (SDF-1) is a CXC chemokine that acts as a stimulator of pre-B lymphocyte cell growth and as a chemoattractant for T cells, monocytes, and hematopoietic stem cells. More recent studies also suggest that megakaryocytes migrate in response to SDF-1. Because genetic elimination of SDF-1 or its receptor lead to marrow aplasia, we investigated the effect of SDF-1 on megakaryocyte progenitors (colony-forming units-megakaryocyte [CFU-MK]).

We report that SDF-1 augments the growth of CFU-MK from whole murine bone marrow cells when combined with thrombopoietin (TPO). The addition of SDF-1 to interleukin-3 (IL-3) or stem cell factor (SCF) had no effect. Specific antagonists for CXCR4 (the sole receptor for SDF-1), T22, and 1-9 (P2G) SDF-1 reduced megakaryocyte colony growth induced by TPO alone, suggesting that many culture systems contain endogenous levels of the chemokine that contributes to the TPO effect. To examine whether SDF-1 has direct effects on CFU-MK, we developed a new protocol to purify megakaryocyte progenitors. CFU-MK were highly enriched in CD41(high) c-kit(high) cells generated from lineage-depleted TPO-primed marrow cells. Because the growth-promoting effects of SDF-1 were also observed when highly purified populations of CFU-MK were tested in serum-free cultures, these results suggest that SDF-1 directly promotes the proliferation of megakaryocytic progenitors in the presence of TPO, and in this way contributes to the favorable effects of the bone marrow microenvironment on megakaryocyte development.

L2 ANSWER 16 OF 103 MEDLINE on STN DUPLICATE 17
ACCESSION NUMBER: 95213660 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7535335
TITLE: The FLT3 ligand potently and directly stimulates the growth and expansion of primitive murine bone marrow progenitor cells in vitro: synergistic interactions with interleukin (IL) 11, IL-12, and other hematopoietic growth factors.
AUTHOR: Jacobsen S E; Okkenhaug C; Myklebust J; Veiby O P; Lyman S D
CORPORATE SOURCE: Department of Immunology, Norwegian Radium Hospital, Oslo.
SOURCE: The Journal of experimental medicine, (1995 Apr 1) Vol. 181, No. 4, pp. 1357-63.
Journal code: 2985109R. ISSN: 0022-1007.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199505
ENTRY DATE: Entered STN: 10 May 1995
Last Updated on STN: 3 Mar 2000
Entered Medline: 2 May 1995
AB The recently cloned murine flt3 ligand (FL) was studied for its ability to stimulate the growth of primitive (Lin-Sca-1+) and more committed (Lin-Sca-1-) murine bone marrow progenitor cells, alone and in combination with other hematopoietic growth factors (HGFs). Whereas FL was a weak proliferative stimulator alone, it potently synergized with a number of other HGFs, including all four colony-stimulating factor (CSF), interleukin (IL) 6, IL-11, IL-12, and stem cell factor (SCF), to promote the colony formation of Lin-Sca-1+, but not Lin-Sca-1- or erythroid progenitor cells. The synergistic activity of FL was concentration dependent, with maximum stimulation occurring at 250 ng/ml, and was observed when cells were plated at a concentration of one cell per culture, suggesting that its effects are directly mediated. 2 wk of treatment with FL in combination with IL-3 or SCF resulted in the production of a high proportion of mature myeloid cells (granulocytes and macrophages), whereas the combination of FL with G-CSF, IL-11, or IL-12 resulted predominantly in the formation of cells with an immature blast cell appearance. Accordingly, FL in combination with G-CSF or IL-11 expanded the number of progenitors more than 40-fold after 2 wk incubation. Thus, FL emerges as a potent synergistic HGF, that in combination with numerous other HGFs, can directly stimulate the proliferation, myeloid differentiation, and expansion of primitive hematopoietic progenitor cells.

L2 ANSWER 19 OF 103 MEDLINE on STN DUPLICATE 20
ACCESSION NUMBER: 94093292 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7505667
TITLE: The in vivo effects of steel factor on natural killer lineage cells in murine spleen and bone marrow.
AUTHOR: Miller S C; Fleming W H; Zsebo K M; Weissman I L
CORPORATE SOURCE: Department of Anatomy, McGill University, Montreal, Canada.
SOURCE: Natural immunity, (1993 Nov-Dec) Vol. 12, No. 6, pp. 293-301.
Journal code: 9206126. ISSN: 1018-8916.
PUB. COUNTRY: Switzerland
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199401
ENTRY DATE: Entered STN: 15 Feb 1994
Last Updated on STN: 29 Jan 1996
Entered Medline: 31 Jan 1994

AB Steel factor (S1F), also known as stem cell factor, is a potent growth stimulator of hemopoietic progenitor cells. In the context of transplantation of hemopoietic cells to irradiated allogeneic hosts, natural killer (NK) cells exert restrictive control on hemopoietic cell proliferation, and are regularly found in elevated concentration in areas of intense hemopoiesis. The present study was designed to examine the effects with time of S1F in vivo on the numbers of NK cells, identified by the presence of the NK 1.1 surface molecule, in the spleen and bone marrow. Throughout the first 3 days of S1F exposure, NK cell numbers, in spite of rapid (1 day) and significant increases in the other hemopoietic cell lineages, did not change in either the spleen or the bone marrow. However, NK cells were increased 2-fold in both organs by 7 days of S1F exposure. At this time, immature granuloid and erythroid cells and the large lymphoid cells in the spleen had more than doubled their respective control numbers and in the bone marrow, immature granuloid cells increased by 47% of control levels. The presence of a late, but not early, influence of S1F on NK cells of the spleen and bone marrow suggests an indirect effect of S1F on this lineage, occurring only when S1F-stimulated hemopoiesis becomes sufficiently intense, providing, thus, an abundance of NK cell targets.

L2 ANSWER 25 OF 103 MEDLINE on STN DUPLICATE 26
ACCESSION NUMBER: 91236532 MEDLINE
DOCUMENT NUMBER: PubMed ID: 2032931
TITLE: Haematopoietic stem cell proliferation regulators investigated using an in vitro assay.
AUTHOR: Robinson S; Riches A
CORPORATE SOURCE: Department of Biology and Preclinical Medicine, University of St Andrews, Fife, UK.
SOURCE: Journal of anatomy, (1991 Feb) Vol. 174, pp. 153-62.
Journal code: 0137162. ISSN: 0021-8782.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199106
ENTRY DATE: Entered STN: 14 Jul 1991
Last Updated on STN: 14 Jul 1991
Entered Medline: 24 Jun 1991

AB The in vivo CFU-S murine haematopoietic transplantation assay has allowed haematopoietic stem cell behaviour and regulation to be investigated; however, the in vivo nature of the CFU-S assay restricts its use. Recent

use of combinations of haematopoietic colony-stimulating factors (CSFs) in vitro has cloned a population of colony-forming cells from haematopoietic tissue, characterised by high proliferative potential and proposed to be a component of the haematopoietic stem cell compartment. A high proliferative potential colony-forming cell (HPP-CFC) population was assayed from murine haematopoietic tissue using a combination of WEHi 3B myelomonocytic leukaemic cell line conditioned medium (a crude source of interleukin 3 (IL3)/multi-CSF) and L929 fibroblast cell line conditioned medium (a crude source of M-CSF/CSF-1). The proportion of HPP-CFC in S-phase was determined following incubation with an S-phase specific, cytotoxic agent. In normal bone marrow from CBA/H mice, 9% of HPP-CFC were in S-phase, while in sublethally X-irradiated, regenerating bone marrow, 50% of HPP-CFC were in S-phase, a close correlation with in vivo CFU-S kinetics. The kinetic state of appropriate HPP-CFC populations can be modified in vitro by incubation with stem cell specific regulators (inhibitor and stimulator). Both inhibitor and stimulator were titratable against the appropriate target HPP-CFC population. Results obtained showed a close correlation between the in vivo CFU-S and in vitro HPP-CFC titration data, reinforcing the belief that the HPP-CFC population is a developmentally early haematopoietic precursor, possibly a component of the haematopoietic stem cell compartment.

L2 ANSWER 27 OF 103 MEDLINE on STN DUPLICATE 28
ACCESSION NUMBER: 90216404 MEDLINE
DOCUMENT NUMBER: PubMed ID: 2323992
TITLE: Regulation of haematopoietic stem cell proliferation by stimulatory factors produced by murine fetal and adult liver.
AUTHOR: Dawood K A; Briscoe C V; Thomas D B; Riches A C
CORPORATE SOURCE: Department of Biology and Preclinical Medicine, University of St. Andrews, Scotland.
SOURCE: Journal of anatomy, (1990 Feb) Vol. 168, pp. 209-16.
Journal code: 0137162. ISSN: 0021-8782.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199005
ENTRY DATE: Entered STN: 22 Jun 1990
Last Updated on STN: 22 Jun 1990
Entered Medline: 24 May 1990

AB Haematopoietic stem cells in murine fetal liver are in a proliferative state unlike those in normal bone marrow which are quiescent. A regulatory activity is produced by cells in the fetal liver which will switch quiescent normal bone marrow haematopoietic stem cells into cell cycle in vitro. This regulator from Day 15 fetal liver cells is produced by adherent cells and by cells fractionated on a Percoll gradient in the 1.064 and 1.076 g per cm3 density bands but not in the 1.123 g per cm3 band. Colony-stimulating factor cannot be detected in the supernatants containing the stem cell regulatory activity. The stimulator can be detected in supernatants produced from cell suspensions of liver cells at Day 15 and Day 17 of gestation and 24 hours and 72 hours after birth. However by 1 week after birth the production of the stimulator decreases and is undetectable 3 and 10 weeks after birth. The total numbers of haematopoietic stem cells (CFU-S) in fetal liver decrease from Day 15 of gestation and only small numbers are present 1 week after birth. Thus the decline in the production of haematopoietic stem cell proliferation stimulator correlates with the decrease in haematopoietic stem cell numbers in the liver through gestation and after birth.

L2 ANSWER 29 OF 103 MEDLINE on STN DUPLICATE 30
ACCESSION NUMBER: 88213448 MEDLINE
DOCUMENT NUMBER: PubMed ID: 3259237
TITLE: The effects of recombinant CSF-1 on the blast cells of acute myeloblastic leukemia in suspension culture.
AUTHOR: Miyauchi J; Wang C; Kelleher C A; Wong G G; Clark S C; Minden M D; McCulloch E A
CORPORATE SOURCE: Ontario Cancer Institute, Toronto, Canada.
SOURCE: Journal of cellular physiology, (1988 Apr) Vol. 135, No. 1, pp. 55-62.
Journal code: 0050222. ISSN: 0021-9541.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198806
ENTRY DATE: Entered STN: 8 Mar 1990
Last Updated on STN: 3 Feb 1997
Entered Medline: 17 Jun 1988
AB Recombinant hemopoietic colony-stimulating factors (CSFs), including GM-CSF, G-CSF and IL-3, have been shown to be effective stimulators of both self-renewal and terminal differentiation of blast stem cells in acute myeloblastic leukemia (AML). We have examined the activity of a fourth growth factor, recombinant CSF-1 (or M-CSF), on the growth of leukemic blasts in culture. CSF-1 was found to be active on some, but not all, blast populations. In sensitive cells, CSF-1 often stimulated the production of adherent blast cells incapable of division. This observation leads us to suggest that CSF-1 may be useful in the treatment of selected cases of AML.

L2 ANSWER 30 OF 103 MEDLINE on STN DUPLICATE 31
ACCESSION NUMBER: 87313584 MEDLINE
DOCUMENT NUMBER: PubMed ID: 3498096
TITLE: A stimulator of mouse stem cell proliferation produced by human regenerating bone marrow.
AUTHOR: Oishi H; Katsuno M; Umemura T; Nishimura J; Motomura S; Ibayashi H
SOURCE: Leukemia research, (1987) Vol. 11, No. 8, pp. 699-704.
Journal code: 7706787. ISSN: 0145-2126.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198710
ENTRY DATE: Entered STN: 5 Mar 1990
Last Updated on STN: 5 Mar 1990
Entered Medline: 19 Oct 1987
AB We examined CFU-S proliferation stimulator, which recruits stem cells in DNA synthesis, in conditioned media prepared from bone marrow cells of patients with regeneration hemopoiesis after chemotherapy induced hypoplasia. This activity was estimated by hydroxyurea sensitivity of CFU-S in mice, under conditions of incubation with human bone marrow conditioned medium (BMCM). We found that CFU-S proliferation stimulator was present to a considerable extent in human regenerating BMCM, but less so in normal BMCM and that the production fluctuated with change of hemopoietic states, in the same patient. This stimulator was heat-labile, trypsin-sensitive and mainly produced by adherent cells. This factor may possibly be involved in regulation of proliferation of stem cells in regenerating bone marrow in humans.

L2 ANSWER 34 OF 103 MEDLINE on STN DUPLICATE 35
ACCESSION NUMBER: 87006212 MEDLINE
DOCUMENT NUMBER: PubMed ID: 3530907
TITLE: Quantitative problems in bone marrow transplantation by peripheral blood stem cells.
AUTHOR: Serafimov-Dimitrov V
SOURCE: Haematologia, (1986) Vol. 19, No. 2, pp. 141-6.
Journal code: 0130266. ISSN: 0017-6559.
PUB. COUNTRY: Hungary
DOCUMENT TYPE: (CLINICAL TRIAL)
(COMPARATIVE STUDY)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198610
ENTRY DATE: Entered STN: 2 Mar 1990
Last Updated on STN: 2 Mar 1990
Entered Medline: 30 Oct 1986
AB Investigation into radiation bone marrow aplasia in mice, guinea pigs, dogs and clinical trials in man presented clear evidence of successful engraftment of autologous or allogeneic peripheral blood stem cells. The quantitative donation problems are discussed arising with the use of continuous cytopheresis to obtain a sufficient quantity of peripheral blood mononuclears (stem cells) for repopulation of aplastic bone marrow. Although bone marrow repopulation is possible by using peripheral blood mononuclears (stem cells) in individual cases, the method can only be used in practice after discovering an appropriate stimulator able to augment several times the number of bone marrow stem cells in the peripheral blood, or a new method for stem cell multiplication in vitro.

L2 ANSWER 43 OF 103 MEDLINE on STN DUPLICATE 44
ACCESSION NUMBER: 83061054 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7144230
TITLE: Stimulation of haemopoietic stem cell proliferation: characteristics of the stimulator -producing cells.
AUTHOR: Wright E G; Ali A M; Riches A C; Lord B I
SOURCE: Leukemia research, (1982) Vol. 6, No. 4, pp. 531-9.
Journal code: 7706787. ISSN: 0145-2126.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198301
ENTRY DATE: Entered STN: 17 Mar 1990
Last Updated on STN: 17 Mar 1990
Entered Medline: 27 Jan 1983
AB Media conditioned by regenerating murine bone marrow cells contain a stimulator of haemopoietic stem cell proliferation. Fractionated cell populations have been examined for production of this stimulatory activity in order to characterize its cellular source. The stimulator is produced by adherent, phagocytic, radioresistant, Thy 1.2-, Fc+ cells in a population concentrated in a density range of 1.064-1.072 g/ml. The results indicate that the producer cells reside in the heterogenous mononuclear phagocytic population of the bone marrow.

L2 ANSWER 46 OF 103 MEDLINE on STN DUPLICATE 50

ACCESSION NUMBER: 81134497 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7470631
TITLE: Sources of haemopoietic stem cell proliferation: stimulators and inhibitors.
AUTHOR: Lord B I; Wright E G
SOURCE: Blood cells, (1980) Vol. 6, No. 4, pp. 581-93. Journal code: 7513567. ISSN: 0340-4684.
PUB. COUNTRY: GERMANY, WEST: Germany, Federal Republic of
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198105
ENTRY DATE: Entered STN: 16 Mar 1990
Last Updated on STN: 16 Mar 1990
Entered Medline: 21 May 1981

AB Based on earlier findings that haemopoietic tissue contains extractable factors which are capable of specifically inhibiting or stimulating the movement of CFU-S into DNA synthesis, a series of preliminary experiments has now been carried out to investigate their cellular source(s), their activity in vivo, and their applicability to human problems. In vivo treatment of mice, in which femoral CFU-S are proliferating rapidly, with the inhibitory factor reduces the proportion of CFU-S in DNA synthesis to non-significant proportions. In addition, the inhibitor is capable of reducing the number of CFU-S induced to enter S following treatment with hydroxyurea, thus protecting CFU-S from the lethal effects of S-phase cytotoxic agents. Removal of specific types of marrow cells shows that both inhibitor and stimulator are adherent, phagocytic and, in the case of inhibitor, Thy--1-. These results suggest that the producer cells probably reside somewhere in the heterogeneous macrophage complex though their different densities suggest they are probably different cell types. Fresh human bone marrow is found to contain a very similar inhibitor and long-term cultures are also found to produce it continuously. The isolation of the producer cells may thus contribute to the understanding of normal physiological stem cell regulation and, by in vivo application, its eventual manipulation and protection.

L2 ANSWER 49 OF 103 MEDLINE on STN DUPLICATE 55
ACCESSION NUMBER: 79021839 MEDLINE
DOCUMENT NUMBER: PubMed ID: 308819
TITLE: Production of stem cell proliferation stimulators and inhibitors by haemopoietic cell suspensions.
AUTHOR: Wright E G; Lord B I
SOURCE: Biomedicine / [publiee pour l'A.A.I.C.I.G.], (1978 May-Jun) Vol. 28, No. 3, pp. 156-60. Journal code: 0361342. ISSN: 0300-0893.
PUB. COUNTRY: France
DOCUMENT TYPE: (IN VITRO)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 197812
ENTRY DATE: Entered STN: 14 Mar 1990
Last Updated on STN: 14 Mar 1990
Entered Medline: 27 Dec 1978

AB In mice treated with phenylhydrazine haemopoietic spleen colony forming cells (CFU-S) are proliferating rapidly in the bone marrow but not in the spleen. Using such mice we have investigated the production of factors responsible for the control of CFU-S proliferation. When irradiated spleen cells are incubated with non-irradiated bone marrow cells there is a marked fall in the proportion of femoral CFU-S in DNA synthesis. In the

converse experiments, rapid triggering of splenic CFU-S is achieved. Both these effects can be eliminated by washing the irradiated cells prior to incubation; they are, however, retained in the supernatant media "conditioned" by these cells. When the washed cells are incubated in fresh medium at 37 degrees C both stimulatory and inhibitory activities reappear but after different incubation periods. The data demonstrate that both proliferation stimulatory and inhibitory factors acting on CFU-S can be produced by the same haemopoietic cell suspension.

L2 ANSWER 51 OF 103 MEDLINE on STN DUPLICATE 57
ACCESSION NUMBER: 78000594 MEDLINE
DOCUMENT NUMBER: PubMed ID: 332243
TITLE: A stimulator of stem cell proliferation in regenerating bone marrow.
AUTHOR: Lord B I; Mori K J; Wright E G
SOURCE: Biomedicine / [publiee pour l'A.A.I.C.I.G.], (1977 Jul) Vol. 27, No. 6, pp. 223-6.
Journal code: 0361342. ISSN: 0300-0893.
PUB. COUNTRY: France
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 197711
ENTRY DATE: Entered STN: 14 Mar 1990
Last Updated on STN: 14 Mar 1990
Entered Medline: 30 Nov 1977
AB A factor, capable of stimulating resting haemopoietic stem cells into DNA-synthesis has been extracted from regenerating bone marrow. It has a molecular weight in the range of 30.000-50.000 daltons and is not detectable in normal bone marrow. Used in combination with a stem cell proliferation inhibitor, previously described, it will restimulate proliferation in stem cells initially stopped by the inhibitor. Conversely, stimulation produced by this factor can be reversed by the addition of inhibitor. It is concluded that stem cell proliferation is controlled by an appropriate balance of endogenously produced stimulatory and inhibitory factors.

L2 ANSWER 58 OF 103 MEDLINE on STN
ACCESSION NUMBER: 74130076 MEDLINE
DOCUMENT NUMBER: PubMed ID: 4150455
TITLE: Prostaglandin E2 as stimulator of haemopoietic stem cell proliferation.
AUTHOR: Feher I; Gidali J
SOURCE: Nature, (1974 Feb 22) Vol. 247, No. 442, pp. 550-1.
Journal code: 0410462. ISSN: 0028-0836.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 197405
ENTRY DATE: Entered STN: 10 Mar 1990
Last Updated on STN: 6 Feb 1995
Entered Medline: 28 May 1974

L2 ANSWER 60 OF 103 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 45
ACCESSION NUMBER: 1982:86673 BIOSIS
DOCUMENT NUMBER: PREV198223016665; BR23:16665
TITLE: INTERFERON ITS ROLE IN RADIOPROTECTION AS A HEMATOPOIETIC STEM CELL STIMULATOR.
AUTHOR(S): LVOVSKY E A [Reprint author]

CORPORATE SOURCE: DIV RADIAT ONCOL BIOPHYS, GEORGE WASHINGTON UNIV MED CENT, WASHINGTON, DC 20037, USA
SOURCE: International Journal of Radiation Oncology, Biology, Physics, (1981) Vol. 7, No. 9, pp. 1290-1291.
Meeting Info.: 23RD ANNUAL MEETING OF THE AMERICAN SOCIETY OF THERAPEUTIC RADIOLOGISTS, MIAMI BEACH, FLA., USA, OCT. 12-16, 1981. INT J RADIAT ONCOL BIOL PHYS.
CODEN: IOBPD3. ISSN: 0360-3016.
DOCUMENT TYPE: Conference; (Meeting)
FILE SEGMENT: BR
LANGUAGE: ENGLISH

L2 ANSWER 66 OF 103 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
ACCESSION NUMBER: 2004:140346 BIOSIS
DOCUMENT NUMBER: PREV200400133713
TITLE: Surgical injection of autologous, G-CSF mobilized, peripheral blood CD133+ cells for myocardial regeneration in patients undergoing coronary artery bypass grafting.
AUTHOR(S): Pompilio, Giulio [Reprint Author]; Cannata, Aldo [Reprint Author]; Capogrossi, Maurizio; Nascimbene, Angelo [Reprint Author]; Peccatori, Fedro; Biglioli, Paolo [Reprint Author]; Martinelli, Giovanni; Bertolini, Francesco
CORPORATE SOURCE: Cardiovascular Surgery and Gene-Cell Therapy, Cardiology "Monzino" Institute, Milan, Italy
SOURCE: Blood, (November 16 2003) Vol. 102, No. 11, pp. 335a. print.
Meeting Info.: 45th Annual Meeting of the American Society of Hematology. San Diego, CA, USA. December 06-09, 2003. American Society of Hematology.
CODEN: BLOOAW. ISSN: 0006-4971.
DOCUMENT TYPE: Conference; (Meeting)
Conference; (Meeting Poster)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 10 Mar 2004
Last Updated on STN: 10 Mar 2004

AB Bone-marrow stem cells are currently investigated as stimulators of myogenesis and angiogenesis in patients with a recent myocardial infarction, in candidates to coronary artery bypass grafting (CABG), or to induce angiogenesis in patients with refractory chronic angina not eligible for complete revascularization. Here we report a novel procedure for collection and surgical intramyocardial injection of peripheral blood stem cells (PBSC) in patients undergoing CABG. The protocol was approved by the Institutional Board and patients signed an informed consent. After study enrollment, 10 microg/Kg/d G-CSF were administered sc to the patient for 4-5 days to mobilize PBPC. Twelve-leads electrocardiogram was obtained daily. PBPC were collected on day 4-5 by 3-4 h apheresis, and CliniMacs was used to purify CD133+ cells. We collected 1-5X106 CD133+ cells/Kg (purity >90%, Viability >80%) in a final volume of 15-20 mL. CABG was scheduled for the day following apheresis to maintain cellular viability. The pericardium was opened and the myocardial regions target of PBSC injection recognized and inspected. After pre-load and after-load optimization, deep pericardial traction sutures were placed into the oblique sinus to obtain optimal exposure of the coronary vessels and myocardium. By cardiac wall stabilizer and endoluminar shunts, off-pump coronary bypass grafting was accomplished. PBSC were injected on a beating heart into the target myocardial areas by gentle hand injection. Needle covers were left in place and shortened (3 mm) to control PBPC injection (15-20 injections of 0.5-1.0 mL) into the myocardium. This constant depth avoided insufficient or excessive penetration. To induce myocardial repair, injections were accomplished

along the border of the myocardial scar, directly visualized on the beating-heart. Conversely, when cell therapy was conducted to generate angiogenesis, cells were delivered into the chronically ischemic ungraftable myocardium, identified by stress scintigraphy and 2-D ECG. We enrolled so far 4 patients. PBSC were intramyocardially delivered to repair a recent myocardial infarction (n=2) or injected in a large ischemic myocardial area not suitable for conventional revascularization (n=2). No cardiac or other complications were noted in early postoperative period or follow-up (3-9 m). In the two patients who underwent 5-m postoperative nuclear and angiographic reinvestigation, disappearance of both a previous inferior MI and a lateral wall ischemia were observed. Waiting for a longer follow-up in a larger series of patients, it is concluded that this novel approach of CABG and intramyocardial injection of blood-mobilized and purified CD133+ cells in a beating-heart is safe and feasible in patients with ischemic cardiomyopathy.

L2 ANSWER 71 OF 103 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
ACCESSION NUMBER: 1996:256064 BIOSIS
DOCUMENT NUMBER: PREV199698812193
TITLE: An orally available small molecule stimulator of bone marrow stem cells accelerates postchemotherapy recovery of peripheral neutrophils and platelets.
AUTHOR(S): Morgan, A. S. [Reprint author]; Stanboli, A. [Reprint author]; Sanderson, P. [Reprint author]; Broxmeyer, H. E.
CORPORATE SOURCE: Terrapin Technologies, South San Francisco, CA 94080, USA
SOURCE: Proceedings of the American Association for Cancer Research Annual Meeting, (1996) Vol. 37, No. 0, pp. 288. Meeting Info.: 87th Annual Meeting of the American Association for Cancer Research. Washington, D.C., USA. April 20-24, 1996. ISSN: 0197-016X.
DOCUMENT TYPE: Conference; (Meeting) Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 31 May 1996 Last Updated on STN: 31 May 1996

L2 ANSWER 79 OF 103 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
ACCESSION NUMBER: 1979:127045 BIOSIS
DOCUMENT NUMBER: PREV197967007045; BA67:7045
TITLE: EXPERIMENTAL AND CLINICAL INVESTIGATIONS ON STEM CELL TAKE AND COLONY FORMATION.
AUTHOR(S): ASTALDI G [Reprint author]; BAGNARA G P; BRUNELLI M A; KARANOVIC D; KARANOVIC J; SCORZA R; TOPUZ U
CORPORATE SOURCE: BLOOD RES FOUND CENT, HOSP TORTONA, 15057 TORTONA, ITALY
SOURCE: Haematologia, (1977) Vol. 11, No. 1-2, pp. 11-30. CODEN: HAEMBY. ISSN: 0017-6559.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
AB Lymphocyte transplantation into total body-irradiated rats was discussed. The effect on spleen colony formation caused by the transplantation of untreated lymphocytes, as well as of lymphocytes previously incubated with PHA [phytohemagglutinin], with PHA plus L-asparaginase, or with lymphokines was studied. The effect of the urinary colony-stimulating factor in vitro, and the in vitro feeder-layer activity of leukocytes on colony formation of human and mice bone marrow cells in hematological diseases was discussed. The injection of rat lymphocytes previously

incubated for 24 h with PHA resulted in a higher number and a larger size of colonies in the spleen of the recipient rats. Lymphocytes preincubated with lymphokines gave rise to the formation of spleen colonies which were larger than those developing after the injection of untreated lymphocytes. When the lymphocytes were previously incubated with PHA plus L-asparaginase, PHA failed to stimulate colony formation in the spleen. The phenomenon is explained by assuming that PHA, as an aspecific stimulator of cell division, initiated the division of CFUs [pluripotential stem cells]. The CFUs content of the preincubated samples increased, resulting in an increase in the number of colonies formed after the transplantation of lymphocytes pretreated with PHA. Another possible explanation is that CFUs division, or their spleen take was enhanced by the immunocompetent lymphocytes activated by PHA, either directly or via soluble mediators produced or released by immunocompetent lymphocytes such as lymphokines. The study of colony-forming cells and colony-stimulating activity in primary myelofibrosis (PM) showed an increase in the number of circulating CFUc [granulocyte progenitor cells] in this conditions, and an abnormal density of these cells reaching a peak below 1.062. The lowering of CSA [colony stimulating activity] in the first 2 peripheral blood gradient fractions agreed with the observation in the same fractions ofa high percentage of CFUc at the expense of the CSC population. Double cell population seems to exist in PM. One is greatly abnormal with a low specific density and high plating efficiency; the other population is almost normal, showing a higher specific density and a lower plating efficiency.

L2 ANSWER 82 OF 103 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:716893 CAPLUS
DOCUMENT NUMBER: 141:218997
TITLE: Inhibitor and stimulator of stem cell proliferation and uses thereof
INVENTOR(S): Wolpe, Stephen D.; Tsyrlova, Irena
PATENT ASSIGNEE(S): Wellstat Therapeutics Corporation, USA
SOURCE: U.S., 70 pp., Cont.-in-part of U.S. Ser. No. 627,173.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
US 6784155	B1	20040831	US 1997-832443	19970403	
US 5861483	A	19990119	US 1996-627173	19960403	<--
CA 2249716	A1	19971009	CA 1997-2249716	19970403	<--
CN 1220670	A	19990623	CN 1997-195095	19970403	<--
CN 1541706	A	20041103	CN 2004-10007470	19970403	
ES 2252781	T3	20060516	ES 1997-920117	19970403	
EP 1820805	A2	20070822	EP 2005-19956	19970403	
R: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE, AL, LT, LV, RO, SI					
ZA 9802746	A	19990329	ZA 1998-2746	19980401	<--
KR 2000005428	A	20000125	KR 1998-708185	19981002	<--
NZ 504512	A	20011026	NZ 2000-504512	20000512	<--
AU 768081	B2	20031204	AU 2001-23195	20010223	<--
US 2004167060	A1	20040826	US 2004-776172	20040212	
US 7115267	B2	20061003			
HK 1069985	A1	20070309	HK 2005-102673	20050330	
US 2006166863	A1	20060727	US 2006-386736	20060323	
PRIORITY APPLN. INFO.:			US 1996-627173	A2 19960403	
			AU 1997-24391	A3 19970403	
			EP 1997-920117	A3 19970403	

NZ 1997-331895 A1 19970403
US 1997-832443 A 19970403
WO 1997-US5601 W 19970403
US 2004-776172 A3 20040212

AB Disclosed and claimed are methods for the isolation and use of stem cell modulating factors for regulating stem cell cycle and for accelerating the post-chemotherapy peripheral blood cell recovery. Also disclosed and claimed are the inhibitors and stimulators of stem cell proliferation. Hb α-chain fragments are described that have the desired properties.

REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 95 OF 103 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1996:684559 CAPLUS
DOCUMENT NUMBER: 126:6155
TITLE: Purification and identification of a hematopoietic stem cell proliferation stimulator from human fetal liver
AUTHOR(S): Wen, Geng-Yun; Wu, Zu-Ze; He, Fu-Chu; Pei, Xue-Tao
CORPORATE SOURCE: Inst. Radiation med., Beijing, 100850, Peop. Rep. China
SOURCE: Shengwu Huaxue Zazhi (1996), 12(5), 569-573
CODEN: SHZAE4; ISSN: 1000-8543
PUBLISHER: Zhongguo Shengwu Huaxue Yu Fenzi Shengwu Xuehui
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

AB Through several steps including ultrafiltration, chromatog. on DEAE-Sephacel, Sephacryl S-200 and HPLC-Superose 12 HR, a substance of 35 kD termed as FLS-4 was isolated from human fetal livers of 3-5 mo with highly activity of stimulating hematopoietic stem cell proliferation. In phys. and biol. nature, FLS-4 exhibited a unique character different from IL-3, IL-6, CM-CSF and FLT3 ligand which are known to have hematopoietic stem cell proliferation stimulating activity of different extent. FLS-4 is very likely to be a novel hematopoietic stem cell proliferation stimulator. During the period of active hematopoiesis in fetal liver, FLS-4 might be the major candidate in triggering hematopoietic stem cells from resting G0 into cytocycling phase.

L2 ANSWER 100 OF 103 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 1982145728 EMBASE
TITLE: Regulation of pluripotent stem cell proliferation and differentiation: The role of long-range humoral factors.
AUTHOR: Tubiana M.; Frindel E.
CORPORATE SOURCE: Inst. Radiobiol., Clin., Inst. Gustave-Roussy, 94800 Villejuif, France
SOURCE: Journal of Cellular Physiology, (1982) Vol. 110, No. Suppl. 1, pp. 13-21.
ISSN: 0021-9541 CODEN: JCLLAX
COUNTRY: United States
DOCUMENT TYPE: Journal
FILE SEGMENT: 029 Clinical and Experimental Biochemistry
LANGUAGE: English
ENTRY DATE: Entered STN: 9 Dec 1991
Last Updated on STN: 9 Dec 1991

AB The proliferative status of the hemopoietic pluripotential stem cells (CFU-S) is controlled by inhibitors and stimulators , which have been studied by an in vivo-in vitro technique. Inhibitors protect CFU-S during iterative administration of cycle specific drugs. Among stimulators are long-range humoral factors that are released by bone

marrow following irradiation or drug administration. After the same treatment, bone marrow also releases a long-range humoral factor that increases the rate of differentiation of CFU-S, probably in order to compensate for the depletion of the maturing compartment. This differentiation is qualitatively different from normal differentiation. When the bone marrow of mice treated with Ara-C is transplanted to lethally irradiated mice, the total number of nodules remains constant; however the number of erythroid (E) colonies in the spleen is significantly increased, while the number of granulocytic (G) colonies is significantly decreased, and the number of mixed colonies is slightly decreased. Similar observations for E and G colonies are made when normal bone marrow is injected into lethally irradiated mice following in vitro incubation with humoral factors released by cytosine-arabinoside (Ara-C) treated mice. In both cases most splenic colonies contain CFU-S and GM-CFC, even when they appear histologically E colonies. After irradiation or iterative administration of Ara-C the E/G ratio is decreased. The factors involved, pluripoietins, are released by both bone marrow and spleen and are found in the serum of treated mice. The mechanism by which they act is unknown; however two hypotheses can be made: a) Modulation of differentiation potential towards only one of the cell lineages. During 6 to 7 days after ARa-C administration the determination of CFU-S is modified. However this restriction to erythroid determination is temporary. This hypothesis is compatible with the 'hemopoietic inductive model', but microenvironment is not playing any role. b) Specific inhibition or stimulation of the committed stem cells to which the CFU-S having received the 'message' gives birth. This information lasts during one week but disappears when the cells are plated in vitro. Whatever the mechanism, the primary events occur at CFU-S level and the information is transmitted to the descendants, showing that humoral factors can channel the differentiation pathways.

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STN INTERNATIONAL SESSION SUSPENDED AT 12:31:53 ON 24 SEP 2007

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LOGINID:SSPTAEGS1646

PASSWORD:
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AT 12:51:12 ON 24 SEP 2007
FILE 'MEDLINE' ENTERED AT 12:51:12 ON 24 SEP 2007
FILE 'BIOSIS' ENTERED AT 12:51:12 ON 24 SEP 2007

FILE 'CAPLUS' ENTERED AT 12:51:12 ON 24 SEP 2007

FILE 'EMBASE' ENTERED AT 12:51:12 ON 24 SEP 2007

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                                                      ENTRY    SESSION
CA SUBSCRIBER PRICE                                    -2.34      -2.34

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     (FILE 'HOME' ENTERED AT 10:32:29 ON 24 SEP 2007)

     FILE 'MEDLINE, BIOSIS, CAPLUS, EMBASE' ENTERED AT 10:32:53 ON 24 SEP 2007
L1          220 S (STEM(A)CELL)(S)(STIMULATOR OR DIFFERENTIATOR) AND PD<=200404
L2          103 DUP REM L1 (117 DUPLICATES REMOVED)
L3            2 S L2 AND (BETA(A)CELL OR LANGERHAN?)

=> S (STEM(A)CELL)(S)(Recruiting(3A)factor) AND pd<=20040415
   2 FILES SEARCHED...
L4          16 (STEM(A) CELL)(S)(RECRUITING(3A) FACTOR) AND PD<=20040415

=> Dup rem l4
PROCESSING COMPLETED FOR L4
L5            7 DUP REM L4 (9 DUPLICATES REMOVED)
                ANSWERS '1-5' FROM FILE MEDLINE
                ANSWERS '6-7' FROM FILE BIOSIS

=> D Ibib abs L5 1-7

L5   ANSWER 1 OF 7     MEDLINE on STN                    DUPLICATE 1
ACCESSION NUMBER:   2003286492     MEDLINE
DOCUMENT NUMBER:    PubMed ID: 12799282
TITLE:              Angiogenic factors reconstitute hematopoiesis by
                    recruiting stem cells from bone
                    marrow microenvironment.
AUTHOR:             Rafii Shahin; Avecilla Scott; Shmelkov Sergey; Shido Koji;
                    Tejada Rafael; Moore Malcolm A S; Heissig Beate; Hattori
                    Koichi
CORPORATE SOURCE:   Cornell University Medical College, New York, New York
                    10021, USA.. sraffi@med.cornell.edu
SOURCE:             Annals of the New York Academy of Sciences, (2003
                    May) Vol. 996, pp. 49-60.
                    Journal code: 7506858. ISSN: 0077-8923.
PUB. COUNTRY:       United States
DOCUMENT TYPE:      Journal; Article; (JOURNAL ARTICLE)
LANGUAGE:           English
FILE SEGMENT:       Priority Journals
ENTRY MONTH:        200307
ENTRY DATE:         Entered STN: 20 Jun 2003
                    Last Updated on STN: 25 Jul 2003
                    Entered Medline: 24 Jul 2003
AB   The mechanism by which angiogenic factors recruit bone marrow (BM)-derived
     quiescent endothelial and hematopoietic stem cells (HSCs) is not known.
     Here, we report that functional vascular endothelial growth factor
     receptor-1 (VEGFR1, Flt-1) is expressed on a subpopulation of human
     CD34(+) and mouse Lin-Sca-1(+)c-Kit(+) BM-repopulating stem cells,
     conveying signals for recruitment of HSCs and reconstitution of
     hematopoiesis.  Inhibition of VEGFR1 signaling, but not VEGFR2 (Flk-1,
     KDR), blocked HSC cell cycling, differentiation and hematopoietic recovery
     after BM suppression, resulting in the demise of the treated mice.  Plasma
     elevation of placental growth factor (PlGF), which signals through VEGFR1,
     but not VEGFR2, restored hematopoiesis during the early and late phases
     following BM suppression.  The mechanism whereby PlGF enhanced early
     phases of BM recovery was mediated directly through rapid chemotaxis of
     readily available VEGFR1(+) BM-repopulating and progenitor cells.  The
     late phase of hematopoietic recovery was driven by PlGF-induced
     upregulation of matrix metalloproteinase-9 (MMP-9) in the BM, mediating
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the release of soluble Kit-ligand (sKitL). sKitL increased proliferation and motility of HSCs and progenitor cells, thereby augmenting hematopoietic recovery. PlGF promotes recruitment of VEGFR1(+) HSCs from a quiescent to a proliferative microenvironment within the BM, favoring differentiation, mobilization, and reconstitution of hematopoiesis.

L5 ANSWER 2 OF 7 MEDLINE on STN DUPLICATE 2
ACCESSION NUMBER: 2002402553 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12091880
TITLE: Placental growth factor reconstitutes hematopoiesis by recruiting VEGFR1(+) stem cells from bone-marrow microenvironment.
AUTHOR: Hattori Koichi; Heissig Beate; Wu Yan; Dias Sergio; Tejada Rafael; Ferris Barbara; Hicklin Daniel J; Zhu Zhenping; Bohlen Peter; Witte Larry; Hendrikx Jan; Hackett Neil R; Crystal Ronald G; Moore Malcolm A S; Werb Zena; Lyden David; Rafii Shahin
CORPORATE SOURCE: Department of Medicine, Cornell University Medical College, New York, New York, USA.
CONTRACT NUMBER: AR46238 (NIAMS)
CA 72006 (NCI)
CA 75072 (NCI)
NS39278 (NINDS)
R01 HL-58707 (NHLBI)
R01 HL-66592 (NHLBI)
R01 HL-67839 (NHLBI)
R01 HL61401 (NHLBI)
R01 HL61849 (NHLBI)
SOURCE: Nature medicine, (2002 Aug) Vol. 8, No. 8, pp. 841-9. Electronic Publication: 2002-07-01.
Journal code: 9502015. ISSN: 1078-8956.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200209
ENTRY DATE: Entered STN: 2 Aug 2002
Last Updated on STN: 7 Sep 2002
Entered Medline: 6 Sep 2002
AB The mechanism by which angiogenic factors recruit bone marrow (BM)-derived quiescent endothelial and hematopoietic stem cells (HSCs) is not known. Here, we report that functional vascular endothelial growth factor receptor-1 (VEGFR1) is expressed on human CD34(+) and mouse Lin(-)Sca-1(+)c-Kit(+) BM-repopulating stem cells, conveying signals for recruitment of HSCs and reconstitution of hematopoiesis. Inhibition of VEGFR1, but not VEGFR2, blocked HSC cell cycling, differentiation and hematopoietic recovery after BM suppression, resulting in the demise of the treated mice. Placental growth factor (PlGF), which signals through VEGFR1, restored early and late phases of hematopoiesis following BM suppression. PlGF enhanced early phases of BM recovery directly through rapid chemotaxis of VEGFR1(+) BM-repopulating and progenitor cells. The late phase of hematopoietic recovery was driven by PlGF-induced upregulation of matrix metalloproteinase-9, mediating the release of soluble Kit ligand. Thus, PlGF promotes recruitment of VEGFR1(+) HSCs from a quiescent to a proliferative BM microenvironment, favoring differentiation, mobilization and reconstitution of hematopoiesis.

L5 ANSWER 3 OF 7 MEDLINE on STN DUPLICATE 3
ACCESSION NUMBER: 95106812 MEDLINE

DOCUMENT NUMBER: PubMed ID: 7528861
TITLE: Primitive multilineage progenitor cells predominate in peripheral blood early after mobilization with high-dose cyclophosphamide and GM-CSF or G-CSF.
AUTHOR: Croockewit S; Raymakers R; Trilsbeek C; Dolstra H; Pennings A; de Witte T
CORPORATE SOURCE: Division of Hematology, University Hospital Nijmegen, The Netherlands.
SOURCE: Leukemia : official journal of the Leukemia Society of America, Leukemia Research Fund, U.K, (1994 Dec) Vol. 8, No. 12, pp. 2194-9.
Journal code: 8704895. ISSN: 0887-6924.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199501
ENTRY DATE: Entered STN: 15 Feb 1995
Last Updated on STN: 29 Jan 1996
Entered Medline: 27 Jan 1995

AB The change in phenotype, number and proliferative capacity of peripheral blood hematopoietic progenitors (PBHP) was studied in six patients with multiple myeloma during hematopoietic recovery after mobilization with high-dose cyclophosphamide and GM-CSF or G-CSF. In all six patients the first CD34+ cells appearing in the peripheral blood (PB) after cytoreductive treatment were predominantly CD34+/33- (> 70%). At later stages when leukapheresis procedures were started, the CD34+/33+ cells predominated in five of six patients. In leukapheresis harvests of peripheral blood, and in bone marrow addition of SCF and IL-6 to the culturing medium enhanced the plating efficiency. In peripheral blood an increase from 12 to 22% for CD34+/33+ and from 6 to 14% for CD34+/33- was observed. In normal bone marrow we observed an increase from 15 to 23% for CD34+/33+ and from 7 to 17% for CD34+/33-. Highly proliferative progenitors (>500 cells) in the CD34+/33- fraction appeared to be dependent on the addition of 'stem cell recruiting factors' (SCF and IL-6); in bone marrow the percentage of wells with >500 cells increased from 0.9 to 12.6% after SCF+IL-6 and in PBHP from 2 to 9%. We conclude that the first progenitors appearing in the peripheral blood after priming with high-dose cyclophosphamide and GM- or G-CSF have a more primitive immunophenotype, CD34+/33-.

L5 ANSWER 4 OF 7 MEDLINE on STN DUPLICATE 4
ACCESSION NUMBER: 94284025 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7516921
TITLE: Peripheral blood cell harvests yield primitive multilineage progenitor cells in the CD34+/33- fraction.
AUTHOR: Croockewit A; Raymakers R A; Trilsbeek C; Dolstra H; Pennings A; De Witte T J; Haanen C
CORPORATE SOURCE: Division of Hematology, University Hospital Nijmegen, The Netherlands.
SOURCE: The International journal of artificial organs, (1993 Dec) Vol. 16 Suppl 5, pp. 83-8.
Journal code: 7802649. ISSN: 0391-3988.
PUB. COUNTRY: Italy
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199407
ENTRY DATE: Entered STN: 10 Aug 1994

Last Updated on STN: 29 Jan 1996
Entered Medline: 25 Jul 1994

AB The presence of primitive hematopoietic progenitor cells or stem cells in peripheral blood (PBSC's) harvests was investigated in a single cell culturing assay and compared with the results obtained in aspirates of normal bone marrow. Based on the presence of CD33, rather differentiated progenitor cells (CD34+/33+) were distinguished from more primitive cells (CD34+/33-). The growth potential of CD34+/33+ and CD34+/33- cells have been studied. Single cell sorting was performed from peripheral blood harvests, obtained from three patients with multiple myeloma during hematopoietic recovery after treatment with high dose cyclophosphamide and rhu-GM-CSF. To test the effect of "stem cell recruiting factors" the cells were sorted in 96-well plates, prefilled with liquid medium both in the presence of IL-3 + G-CSF+GM-CSF+Epo and the same growth factors supplemented with SCF+IL-6. Addition of SCF and IL-6 to the culturing medium enhanced the plating efficiency of CD34+/33- cells considerably more than that of CD34+/33+ cells. This was observed in harvests of peripheral blood as well as in aspirates of normal bone marrow. The differences between CD34+/33+ and CD34+/33- were even more pronounced when only the large colonies (> 500 cells/well) were taken into consideration. Assuming that IL-6 and SCF are "stem cell recruiting factors," the CD34+/33- fraction contains more clonogenic cells than the CD34+/33+ fraction. In all three patients the first CD34+ cells appearing in the peripheral blood (PB) after cytoreductive treatment were predominantly CD34+/33- (> 80%). At later stages when the leukocyte counts had reached higher values the CD34+/33+ cells predominated.(ABSTRACT TRUNCATED AT 250 WORDS)

L5 ANSWER 5 OF 7 MEDLINE on STN
ACCESSION NUMBER: 90364927 MEDLINE
DOCUMENT NUMBER: PubMed ID: 2203234
TITLE: [Interleukin 1 and hematopoiesis].
Interleukin 1 und Hamatopoese.
AUTHOR: Schaffner H
CORPORATE SOURCE: Wissenschaftsbereich Tierphysiologie der Sektion Biowissenschaften, Karl-Marx-Universitat Leipzig.
SOURCE: Allergie und Immunologie, (1990) Vol. 36, No. 2, pp. 77-86. Ref: 54
Journal code: 0314702. ISSN: 0323-4398.
PUB. COUNTRY: GERMANY, EAST: German Democratic Republic
DOCUMENT TYPE: (ENGLISH ABSTRACT)
Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LANGUAGE: German
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199010
ENTRY DATE: Entered STN: 9 Nov 1990
Last Updated on STN: 9 Nov 1990
Entered Medline: 2 Oct 1990

AB Interleukin-1 mediates a broad spectrum of activities in the functional network of cytokines. In addition to its function as an inducer of the acute phase response IL-1 has many effects on hemopoiesis in normal and hematologically impaired organisms. This regulatory function is realized by its ability to stimulate the release of hematopoietic growth factors and by its recruiting property for cell cycles of different hemopoietic progenitors and stem cells. IL-1 acts synergistically with the colony-stimulating factors.

L5 ANSWER 6 OF 7 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
ACCESSION NUMBER: 2003:351870 BIOSIS
DOCUMENT NUMBER: PREV200300351870

TITLE: Angiogenic factors reconstitute hematopoiesis by recruiting stem cells from bone marrow microenvironment.

AUTHOR(S): Rafii, Shahin [Reprint Author]; Avecilla, Scott; Shmelkov, Sergey; Shido, Koji; Tejada, Rafael; Moore, Malcolm A. S.; Heissig, Beate; Hattori, Koichi

CORPORATE SOURCE: Division of Hematology-Oncology, Cornell University Medical College, 1300 York Avenue, Room D601, New York, NY, 10021, USA
srafii@med.cornell.edu

SOURCE: Orlic, Donald [Editor, Reprint Author]; Bruemmendorf, Tim H. [Editor]; Fibbe, Willem [Editor]; Sharkis, Saul [Editor]; Kanz, Lothan [Editor]. (2003) pp. 49-60. Hematopoietic stem cells 2002: Genetics and function. print.
Publisher: New York Academy of Sciences, 2 East 63rd Street, New York, NY, 10021, USA. Series: Annals of the New York Academy of Sciences.
Meeting Info.: Fourth International Symposium on Hematopoietic Stem Cells. Tuebingen, Germany. September 19-21, 2002.
ISSN: 0077-8923 (ISSN print). ISBN: 1-57331-466-8 (cloth).

DOCUMENT TYPE: Book; (Book Chapter)
Conference; (Meeting)
Conference; (Meeting Paper)

LANGUAGE: English

ENTRY DATE: Entered STN: 30 Jul 2003
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ACCESSION NUMBER: 1982:223242 BIOSIS

DOCUMENT NUMBER: PREV198273083226; BA73:83226

TITLE: REGULATION OF MACROPHAGE POPULATION 3. THE IMMUNOLOGIC INDUCTION OF EXUDATES RICH IN IA BEARING MACROPHAGES IS A RADIO SENSITIVE PROCESS.

AUTHOR(S): SCHER M G [Reprint author]; UNANUE E R; BELLER D I

CORPORATE SOURCE: DEP OF PATHOLOGY, HARVARD MEDICAL SCH, BOSTON, MASS 02115, USA

SOURCE: Journal of Immunology, (1982) Vol. 128, No. 1, pp. 447-450.
CODEN: JOIMA3. ISSN: 0022-1767.

DOCUMENT TYPE: Article

FILE SEGMENT: BA

LANGUAGE: ENGLISH

AB Some of the conditions regulating the selective augmentation of the Ia-positive macrophage population within immunologically induced exudates were evaluated. Antigen-stimulated T cells secrete a protein referred to as macrophage-(Ia-positive) recruiting factor (MIRF), which when injected i.p. stimulates a 10- to 20-fold increase in the number of Ia-positive exudate macrophages. This response is totally abrogated when mice are lethally irradiated before injection of MIRF or immune T cells. Adoptive transfer of bone marrow cells to irradiated mice substantially restores their ability to respond to the immunologic stimuli, even if the transferred bone marrow was itself depleted of Ia-positive cells. The high level of Ia-positive macrophages induced by MIRF apparently requires a renewable stem cell source in order to be maintained. Even when macrophages were elicited by injecting thioglycollate before irradiation, Ia-positive cells were not induced in response to MIRF. The target of MIRF in vivo may be restricted to a developmentally young cell within or recently derived from a stem cell compartment such as the bone marrow and Ia-positive and Ia-negative macrophages ultimately derive from a potentially common Ia-negative stem cell.

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L3             2 S L2 AND (BETA(A)CELL OR LANGERHAN?)
L4            16 S (STEM(A)CELL)(S)(RECRUITING(3A)FACTOR) AND PD<=20040415
L5             7 DUP REM L4 (9 DUPLICATES REMOVED)

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L6           844 (BETA(A) CELL OR LANGERHAN?) (L)(EPO OR GM-CSF OR SCF OR G-CSF)
                 AND PD<=20040415

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L7           300 (BETA(A) CELL OR LANGERHAN?)(S)(EPO OR GM-CSF OR SCF OR G-CSF)
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G-CSF) AND pd<=20040415
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L8             0 ((BETA(A) CELL OR LANGERHAN?)(S) REGENERATION) (S)(EPO OR GM-CSF
                  OR SCF OR G-CSF) AND PD<=20040415
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PROCESSING COMPLETED FOR L7
L9          147 DUP REM L7 (153 DUPLICATES REMOVED)
                ANSWERS '1-69' FROM FILE MEDLINE
                ANSWERS '70-94' FROM FILE BIOSIS
                ANSWERS '95-141' FROM FILE CAPLUS
                ANSWERS '142-147' FROM FILE EMBASE

=> D Ti L9 1-69

L9   ANSWER 1 OF 147     MEDLINE on STN                 DUPLICATE 1
TI   Expression of milk fat globule epidermal growth factor 8 in immature
     dendritic cells for engulfment of apoptotic cells.

L9   ANSWER 2 OF 147     MEDLINE on STN                 DUPLICATE 2
TI   Increased islet antigen presentation leads to type-1 diabetes in mice with
     autoimmune susceptibility.

L9   ANSWER 3 OF 147     MEDLINE on STN                 DUPLICATE 3
TI   XPA gene-deficient, SCF-transgenic mice with epidermal melanin are
     resistant to UV-induced carcinogenesis.

L9   ANSWER 4 OF 147     MEDLINE on STN                 DUPLICATE 4
TI   Interleukin-3 in cooperation with transforming growth factor beta induces
     granulocyte macrophage colony stimulating factor independent
     differentiation of human CD34+ hematopoietic progenitor cells into
     dendritic cells with features of Langerhans cells.

L9   ANSWER 5 OF 147     MEDLINE on STN                 DUPLICATE 6
TI   Down-regulation of Toll-like receptor expression in monocyte-derived
     Langerhans cell-like cells: implications of low-responsiveness to
     bacterial components in the epidermal Langerhans cells.

L9   ANSWER 6 OF 147     MEDLINE on STN                 DUPLICATE 7
TI   Withdrawal of TNF-alpha after the fifth day of differentiation of CD34+
     cord blood progenitors generates a homogeneous population of Langerhans
     cells and delays their maturation.

L9   ANSWER 7 OF 147     MEDLINE on STN                 DUPLICATE 8
TI   Novel membrane-bound GM-CSF vaccines for the treatment of cancer:
     generation and evaluation of mbGM-CSF mouse B16F10 melanoma cell vaccine.

L9   ANSWER 8 OF 147     MEDLINE on STN                 DUPLICATE 9
TI   TGF-beta 1 synergizes with GM-CSF to promote the generation of glial
     cell-derived dendriform cells in vitro.

L9   ANSWER 9 OF 147     MEDLINE on STN                 DUPLICATE 11
TI   Immune responses to tumour antigens: implications for antigen specific
     immunotherapy of cancer.

L9   ANSWER 10 OF 147     MEDLINE on STN                DUPLICATE 12
TI   Control of the differentiation state and function of human epidermal
     Langerhans cells by cytokines in vitro.

L9   ANSWER 11 OF 147     MEDLINE on STN                DUPLICATE 13
TI   [The Langerhans cell: from in vitro production to use in cellular
     immunotherapy].
     La cellule de Langerhans: de la production in vitro a l'utilisation en
     immunotherapie cellulaire.

L9   ANSWER 12 OF 147     MEDLINE on STN                DUPLICATE 14
TI   Langerhans cells differentiation: a three-act play.
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L9 ANSWER 13 OF 147 MEDLINE on STN DUPLICATE 15
TI Large-scale culture and selective maturation of human Langerhans cells from granulocyte colony-stimulating factor-mobilized CD34+ progenitors.

L9 ANSWER 14 OF 147 MEDLINE on STN DUPLICATE 16
TI Effect of granulocyte-macrophage colony-stimulating factor on the generation of epidermal Langerhans cells.

L9 ANSWER 15 OF 147 MEDLINE on STN DUPLICATE 17
TI Intradermal granulocyte-macrophage colony-stimulating factor alters cutaneous antigen-presenting cells and differentially affects local versus distant immunization in humans.

L9 ANSWER 16 OF 147 MEDLINE on STN DUPLICATE 18
TI Tumor cell surface expression of granulocyte-macrophage colony-stimulating factor elicits antitumor immunity and protects from tumor challenge in the P815 mouse mastocytoma tumor model.

L9 ANSWER 17 OF 147 MEDLINE on STN DUPLICATE 19
TI Transforming growth factor-beta1 polarizes murine hematopoietic progenitor cells to generate Langerhans cell-like dendritic cells through a monocyte/macrophage differentiation pathway.

L9 ANSWER 18 OF 147 MEDLINE on STN DUPLICATE 20
TI Differential effects of cytokines and immunosuppressive drugs on CD40, B7-1, and B7-2 expression on purified epidermal Langerhans cells1.

L9 ANSWER 19 OF 147 MEDLINE on STN DUPLICATE 21
TI IL-4 inhibits the migration of human Langerhans cells through the downregulation of TNF receptor II expression.

L9 ANSWER 20 OF 147 MEDLINE on STN DUPLICATE 22
TI Human dendritic cells express a 95 kDa activation/differentiation antigen defined by CMRF-56.

L9 ANSWER 21 OF 147 MEDLINE on STN DUPLICATE 23
TI Injection of DNA encoding granulocyte-macrophage colony-stimulating factor recruits dendritic cells for immune adjuvant effects.

L9 ANSWER 22 OF 147 MEDLINE on STN DUPLICATE 25
TI Expression of maturation-/migration-related molecules on human dendritic cells from blood and skin.

L9 ANSWER 23 OF 147 MEDLINE on STN DUPLICATE 26
TI IL-4 addition during differentiation of CD34 progenitors delays maturation of dendritic cells while promoting their survival.

L9 ANSWER 24 OF 147 MEDLINE on STN DUPLICATE 27
TI Effect of granulocyte macrophage-colony stimulating factor on Langerhans cells in normal and healthy atopic subjects.

L9 ANSWER 25 OF 147 MEDLINE on STN DUPLICATE 28
TI GM-CSF promotes differentiation of a precursor cell of monocytes and Langerhans-type dendritic cells from CD34+ haemopoietic progenitor cells.

L9 ANSWER 26 OF 147 MEDLINE on STN DUPLICATE 29
TI Characterisation of two human dendritic cell-lines that express CD1a, take-up, process and present soluble antigens and induce MLR.

L9 ANSWER 27 OF 147 MEDLINE on STN DUPLICATE 30

TI Genetic modification of a carcinoma with the IL-4 gene increases the influx of dendritic cells relative to other cytokines.

L9 ANSWER 28 OF 147 MEDLINE on STN DUPLICATE 31
TI Productive infection of dendritic cells by HIV-1 and their ability to capture virus are mediated through separate pathways.

L9 ANSWER 29 OF 147 MEDLINE on STN DUPLICATE 32
TI DNA polymorphisms and mutations of the tumor necrosis factor-alpha (TNF-alpha) promoter in Langerhans cell histiocytosis (LCH).

L9 ANSWER 30 OF 147 MEDLINE on STN DUPLICATE 33
TI CD34+ peripheral blood progenitor cell and monocyte derived dendritic cells: a comparative analysis.

L9 ANSWER 31 OF 147 MEDLINE on STN DUPLICATE 34
TI Alteration of the CD34+ Tf-1 beta cell line profile in response to long-term exposure to IL-15.

L9 ANSWER 32 OF 147 MEDLINE on STN DUPLICATE 35
TI Modulation of MHC class II+ Langerhans cell numbers in corticosteroid treated epidermis by GM-CSF in combination with TNF-alpha.

L9 ANSWER 33 OF 147 MEDLINE on STN DUPLICATE 36
TI Interleukin-3 cooperates with tumor necrosis factor alpha for the development of human dendritic/Langerhans cells from cord blood CD34+ hematopoietic progenitor cells.

L9 ANSWER 34 OF 147 MEDLINE on STN DUPLICATE 37
TI Role of granulocyte-macrophage colony stimulating factor (GM-CSF) in the pathogenesis of adult pulmonary histiocytosis X.

L9 ANSWER 35 OF 147 MEDLINE on STN DUPLICATE 38
TI Interleukin-1 beta and granulocyte-macrophage colony-stimulating factor mediate Langerhans cell maturation differently.

L9 ANSWER 36 OF 147 MEDLINE on STN DUPLICATE 40
TI Flow cytometric analysis of cytokine receptors on human Langerhans' cells. Changes observed after short-term culture.

L9 ANSWER 37 OF 147 MEDLINE on STN DUPLICATE 41
TI In vitro HIV1 infection of CD34+ progenitor-derived dendritic/ Langerhans cells at different stages of their differentiation in the presence of GM-CSF/TNF alpha.

L9 ANSWER 38 OF 147 MEDLINE on STN DUPLICATE 42
TI Macrophage colony-stimulating factor (M-CSF) inhibits the decrease in the amount of rRNA and IA beta mRNA in cultured epidermal Langerhans cells of the mouse.

L9 ANSWER 39 OF 147 MEDLINE on STN DUPLICATE 43
TI Selected strategies to augment polynucleotide immunization.

L9 ANSWER 40 OF 147 MEDLINE on STN DUPLICATE 44
TI Modulation of Ia+ Langerhans cell numbers in vivo by cultured epidermis derived supernatants and by GM-CSF.

L9 ANSWER 41 OF 147 MEDLINE on STN DUPLICATE 45
TI Epidermal Langerhans cells from mice bearing a granulocyte macrophage-colony stimulating factor-producing mammary tumor display impaired accessory functions.

L9 ANSWER 42 OF 147 MEDLINE on STN DUPLICATE 46
TI Human dendritic Langerhans cells generated in vitro from CD34+ progenitors can prime naive CD4+ T cells and process soluble antigen.

L9 ANSWER 43 OF 147 MEDLINE on STN DUPLICATE 47
TI Functional studies of major histocompatibility class II-positive dendritic cells and resident tissue macrophages isolated from the rat iris.

L9 ANSWER 44 OF 147 MEDLINE on STN DUPLICATE 48
TI Relative roles of T cells and macrophages in cytokine-mediated functional transformation of cultured splenic dendritic cells.

L9 ANSWER 45 OF 147 MEDLINE on STN DUPLICATE 49
TI Expression of GM-CSF receptor by Langerhans' cell histiocytosis cells.

L9 ANSWER 46 OF 147 MEDLINE on STN DUPLICATE 50
TI In situ expression of activation markers by Langerhans' cells containing GM-CSF.

L9 ANSWER 47 OF 147 MEDLINE on STN DUPLICATE 51
TI Synergistic interaction between c-kit ligand (SCF), GM -CSF and TNF promotes optimal dendritic Langerhans cell proliferation from primitive progenitors in human bone marrow.

L9 ANSWER 48 OF 147 MEDLINE on STN DUPLICATE 52
TI Interleukin 10 inhibits T cell alloreaction induced by human dendritic cells.

L9 ANSWER 49 OF 147 MEDLINE on STN DUPLICATE 53
TI [Current data on epidermal Langerhans cells]. Donnees recentes sur la cellule de Langerhans epidermique.

L9 ANSWER 50 OF 147 MEDLINE on STN DUPLICATE 54
TI [Cutaneous immune system]. Le systeme immunitaire cutane.

L9 ANSWER 51 OF 147 MEDLINE on STN DUPLICATE 56
TI Detection of GM-CSF in the sera of children with Langerhans' cell histiocytosis.

L9 ANSWER 52 OF 147 MEDLINE on STN DUPLICATE 57
TI Evidence that granulocyte macrophage-colony-stimulating factor regulates the distribution and differentiated state of dendritic cells/Langerhans cells in human lung and lung cancers.

L9 ANSWER 53 OF 147 MEDLINE on STN DUPLICATE 58
TI Immunohistochemical detection of granulocyte/macrophage colony-stimulating factor in Langerhans' cell histiocytosis.

L9 ANSWER 54 OF 147 MEDLINE on STN DUPLICATE 59
TI TNF and GM-CSF dependent growth of an early progenitor of dendritic Langerhans cells in human bone marrow.

L9 ANSWER 55 OF 147 MEDLINE on STN DUPLICATE 61
TI Cyclosporin increases granulocyte/macrophage colony-stimulating factor (GM-CSF) activity and gene expression in murine keratinocytes.

L9 ANSWER 56 OF 147 MEDLINE on STN DUPLICATE 62
TI GM-CSF and TNF-alpha cooperate in the generation of dendritic Langerhans cells.

L9 ANSWER 57 OF 147 MEDLINE on STN DUPLICATE 63
TI Induction of inflammatory cytokines in murine keratinocytes upon in vivo stimulation with contact sensitizers and tolerizing analogues.

L9 ANSWER 58 OF 147 MEDLINE on STN DUPLICATE 64
TI Granulocyte-macrophage colony-stimulating factor-dependent growth and erythropoietin-induced differentiation of a human cell line MB-02.

L9 ANSWER 59 OF 147 MEDLINE on STN DUPLICATE 65
TI Granulocyte macrophage--colony-stimulating factor (GM-CSF) decreases CD1a expression by human Langerhans cells and increases proliferation in the mixed epidermal cell-lymphocyte reaction (MELR).

L9 ANSWER 60 OF 147 MEDLINE on STN DUPLICATE 66
TI Properties of lymph-borne (veiled) dendritic cells in culture. I. Modulation of phenotype, survival and function: partial dependence on GM-CSF.

L9 ANSWER 61 OF 147 MEDLINE on STN DUPLICATE 67
TI Interleukin 1 binds to specific receptors on human keratinocytes and induces granulocyte macrophage colony-stimulating factor mRNA and protein. A potential autocrine role for interleukin 1 in epidermis.

L9 ANSWER 62 OF 147 MEDLINE on STN DUPLICATE 68
TI Cytokines amplify the function of accessory cells.

L9 ANSWER 63 OF 147 MEDLINE on STN DUPLICATE 69
TI The sensitization phase of T-cell-mediated immunity.

L9 ANSWER 64 OF 147 MEDLINE on STN
TI Dendritic cells and tumor specific immunity.

L9 ANSWER 65 OF 147 MEDLINE on STN
TI The 69th annual meeting symposium. II: Mechanism of necrotizing granuloma formation and its function.

L9 ANSWER 66 OF 147 MEDLINE on STN
TI Immunohistologic study of the nasal mucosa with reference to Langerhans cells.

L9 ANSWER 67 OF 147 MEDLINE on STN
TI Cytokine pattern of Langerhans cells isolated from murine epidermal cell cultures.

L9 ANSWER 68 OF 147 MEDLINE on STN
TI Influence of microenvironmental factors on human Langerhans cell function in vitro.

L9 ANSWER 69 OF 147 MEDLINE on STN
TI The binding of antigen presenting cells to T lymphocytes.

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L3             2 S L2 AND (BETA(A)CELL OR LANGERHAN?)
L4            16 S (STEM(A)CELL)(S)(RECRUITING(3A)FACTOR) AND PD<=20040415
L5             7 DUP REM L4 (9 DUPLICATES REMOVED)
L6           844 S (BETA(A)CELL OR LANGERHAN?) (L)(EPO OR GM-CSF OR SCF OR G-CSF
L7           300 S (BETA(A)CELL OR LANGERHAN?)(S)(EPO OR GM-CSF OR SCF OR G-CSF)
L8             0 S ((BETA(A)CELL OR LANGERHAN?)(S)REGENERATION) (S)(EPO OR GM-CS
L9           147 DUP REM L7 (153 DUPLICATES REMOVED)

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   3 FILES SEARCHED...
L10          95 (BETA(A) CELL)(L)(EPO OR GM-CSF OR SCF OR G-CSF) AND PD<=2004041
                5

=> Dup Rem L10
PROCESSING COMPLETED FOR L10
L11          39 DUP REM L10 (56 DUPLICATES REMOVED)
                ANSWERS '1-22' FROM FILE MEDLINE
                ANSWERS '23-28' FROM FILE BIOSIS
                ANSWERS '29-37' FROM FILE CAPLUS
                ANSWERS '38-39' FROM FILE EMBASE

=> D Ti L11 1-39

L11  ANSWER 1 OF 39     MEDLINE on STN                  DUPLICATE 1
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TI Increased islet antigen presentation leads to type-1 diabetes in mice with autoimmune susceptibility.

L11 ANSWER 2 OF 39 MEDLINE on STN DUPLICATE 2
TI BVL-1-like VL30 promoter sustains long-term expression in erythroid progenitor cells.

L11 ANSWER 3 OF 39 MEDLINE on STN DUPLICATE 4
TI Treatment of insulin resistance in uremia.

L11 ANSWER 4 OF 39 MEDLINE on STN DUPLICATE 7
TI Granulocyte macrophage-colony stimulating factor (GM-CSF) recruits immune cells to the pancreas and delays STZ-induced diabetes.

L11 ANSWER 5 OF 39 MEDLINE on STN DUPLICATE 8
TI Altered dendritic cells (DC) might be responsible for regulatory T cell imbalance and autoimmunity in nonobese diabetic (NOD) mice.

L11 ANSWER 6 OF 39 MEDLINE on STN DUPLICATE 9
TI A defect in bone marrow derived dendritic cell maturation in the nonobesediabetic mouse.

L11 ANSWER 7 OF 39 MEDLINE on STN DUPLICATE 10
TI Peptide-specific cytotoxicity of T lymphocytes against glutamic acid decarboxylase and insulin in type 1 diabetes mellitus.

L11 ANSWER 8 OF 39 MEDLINE on STN DUPLICATE 11
TI Manipulation of pancreatic stem cells for cell replacement therapy.

L11 ANSWER 9 OF 39 MEDLINE on STN DUPLICATE 14
TI Effects of nerve growth factor (NGF) and other fibroblast-derived growth factors on immature human mast cells (HMC-1).

L11 ANSWER 10 OF 39 MEDLINE on STN DUPLICATE 16
TI Alteration of the CD34+ Tf-1 beta cell line profile in response to long-term exposure to IL-15.

L11 ANSWER 11 OF 39 MEDLINE on STN DUPLICATE 17
TI Renal abnormalities in patients with sickle cell-beta thalassemia.

L11 ANSWER 12 OF 39 MEDLINE on STN DUPLICATE 18
TI Monokine-producing cells predominate in the recruitment phase of NOD insulitis while cells producing Th1-type cytokines characterize the effector phase.

L11 ANSWER 13 OF 39 MEDLINE on STN DUPLICATE 19
TI Effects of certain growth factors on in vitro maturation of rat fetal islet-like structures.

L11 ANSWER 14 OF 39 MEDLINE on STN DUPLICATE 20
TI Immunologic attributes of cytokine mobilized peripheral blood stem cells and recovery following transplantation.

L11 ANSWER 15 OF 39 MEDLINE on STN DUPLICATE 21
TI Demonstration of a TH1 cytokine profile in the late phase of NOD insulitis.

L11 ANSWER 16 OF 39 MEDLINE on STN DUPLICATE 22
TI Sequential production of Th1 and Th2 cytokines in response to live bacillus Calmette-Guerin.

L11 ANSWER 17 OF 39 MEDLINE on STN DUPLICATE 23

TI Kinetics and regulation of human keratinocyte stem cell growth in short-term primary ex vivo culture. Cooperative growth factors from psoriatic lesional T lymphocytes stimulate proliferation among psoriatic uninvolved, but not normal, stem keratinocytes.

L11 ANSWER 18 OF 39 MEDLINE on STN DUPLICATE 24
TI [Contribution of cytokines to inflammatory mechanisms].
La participation des cytokines au cours des mecanismes inflammatoires.

L11 ANSWER 19 OF 39 MEDLINE on STN DUPLICATE 25
TI Targeting of "T" lymphocytes against human hepatoma cells by a bispecific monoclonal antibody: role of different lymphocyte subsets.

L11 ANSWER 20 OF 39 MEDLINE on STN DUPLICATE 26
TI Granulocyte-macrophage colony-stimulating factor-dependent growth and erythropoietin-induced differentiation of a human cell line MB-02.

L11 ANSWER 21 OF 39 MEDLINE on STN DUPLICATE 27
TI Characterization of pancreatic T lymphocytes associated with beta cell destruction in the non-obese diabetic (NOD) mouse.

L11 ANSWER 22 OF 39 MEDLINE on STN
TI [Cytokines and inflammation].
Cytokines et inflammation.

L11 ANSWER 23 OF 39 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 5
TI Mono- i disaccharides: Signaling molecules regulating genes expression in yeast, plant and animal cells.
Original Title: Mono- i disacharydy: Drozdzowymi, roslinnymi i zwierzecymi czasteczkami sygnalowymi regulujacymi ekspresje genow..

L11 ANSWER 24 OF 39 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
TI GLP-1 induced differentiation of pancreatic ductal precursor cell line to insulin-producing cells.

L11 ANSWER 25 OF 39 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
TI DC-mediated immune deviation in autoimmune diabetes.

L11 ANSWER 26 OF 39 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
TI Inhibition of GM-CSF receptor function by a splice variant of the common beta-subunit.

L11 ANSWER 27 OF 39 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
TI A critical role for the cytoplasmic domain of the granulocyte-macrophage colony-stimulating factor alpha receptor in mediating cell growth.

L11 ANSWER 28 OF 39 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
TI PROPERTIES OF B CELLS AND THY-1-ANTIGEN-EXPRESSING CELLS INFILTRATING RAT RENAL ALLOGRAFTS.

L11 ANSWER 29 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 3
TI Detection of a functional hybrid receptor γc/GM-CSFRβ in human hematopoietic CD34+ cells

L11 ANSWER 30 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 6
TI Interleukin-7 inhibits pre-T-cell differentiation induced by the

pre-T-cell receptor signal and the effect is mimicked by hGM-CSF in hGM-CSF receptor transgenic mice

L11 ANSWER 31 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 12
TI Expansion of extrathymic T cells as well as granulocytes in the liver and other organs of granulocyte-colony stimulating factor transgenic mice: why they lost the ability of hybrid resistance

L11 ANSWER 32 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 13
TI Tec and Jak2 kinases cooperate to mediate cytokine-driven activation of c-fos transcription

L11 ANSWER 33 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 15
TI A truncated isoform of the human β chain common to the receptors for granulocyte-macrophage colony-stimulating factor, interleukin-3 (IL-3), and IL-5 with increased mRNA expression in some patients with acute leukemia

L11 ANSWER 34 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN
TI A reduced-fat diet and aerobic exercise in Japanese Americans with impaired glucose tolerance decreases intra-abdominal fat and improves insulin sensitivity but not β-cell function

L11 ANSWER 35 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN
TI Inhibition of cytokine activation processes in vitro by tenidap, a novel anti-inflammatory agent

L11 ANSWER 36 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN
TI Islet expression of interferon-α proceeds diabetes in both the BB rat and streptozotocin-treated mice

L11 ANSWER 37 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN
TI The regulatory effect of cytokines on IL-2 production and IL-2 receptors expression of human T lymphocyte and YT cell line

L11 ANSWER 38 OF 39 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights reserved on STN
TI Leptin and the pituitary.

L11 ANSWER 39 OF 39 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights reserved on STN
TI IL-3, IL-5, granulocyte-macrophage colony-stimulating factor receptor α-subunit, and common β-subunit expression by peripheral leukocytes and blood dendritic cells.

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SESSION RESUMED IN FILE 'MEDLINE, BIOSIS, CAPLUS, EMBASE'

AT 13:48:49 ON 24 SEP 2007
FILE 'MEDLINE' ENTERED AT 13:48:49 ON 24 SEP 2007
FILE 'BIOSIS' ENTERED AT 13:48:49 ON 24 SEP 2007

FILE 'CAPLUS' ENTERED AT 13:48:49 ON 24 SEP 2007

FILE 'EMBASE' ENTERED AT 13:48:49 ON 24 SEP 2007

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FULL ESTIMATED COST	179.94	180.15

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(FILE 'HOME' ENTERED AT 10:32:29 ON 24 SEP 2007)

FILE 'MEDLINE, BIOSIS, CAPLUS, EMBASE' ENTERED AT 10:32:53 ON 24 SEP 2007
L1 220 S (STEM(A)CELL)(S)(STIMULATOR OR DIFFERENTIATOR) AND PD<=200404
L2 103 DUP REM L1 (117 DUPLICATES REMOVED)
L3 2 S L2 AND (BETA(A)CELL OR LANGERHAN?)
L4 16 S (STEM(A)CELL)(S)(RECRUITING(3A)FACTOR) AND PD<=20040415
L5 7 DUP REM L4 (9 DUPLICATES REMOVED)
L6 844 S (BETA(A)CELL OR LANGERHAN?) (L)(EPO OR GM-CSF OR SCF OR G-CSF
L7 300 S (BETA(A)CELL OR LANGERHAN?)(S)(EPO OR GM-CSF OR SCF OR G-CSF)
L8 0 S ((BETA(A)CELL OR LANGERHAN?)(S)REGENERATION) (S)(EPO OR GM-CS
L9 147 DUP REM L7 (153 DUPLICATES REMOVED)
L10 95 S (BETA(A)CELL)(L)(EPO OR GM-CSF OR SCF OR G-CSF) AND PD<=20040
L11 39 DUP REM L10 (56 DUPLICATES REMOVED)

=> D Ibib Abs L11 1, 3,4,5,8,9,11-14,17,20,24,34,36,38

L11 ANSWER 1 OF 39 MEDLINE on STN DUPLICATE 1
ACCESSION NUMBER: 2004154338 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15048713
TITLE: Increased islet antigen presentation leads to type-1 diabetes in mice with autoimmune susceptibility.
AUTHOR: Judkowski Valeria; Krakowski Michelle; Rodriguez Enrique; Mocnick Lorraine; Santamaria Pere; Sarvetnick Nora
CORPORATE SOURCE: Department of Immunology, The Scripps Research Institute, La Jolla, CA 92037, USA.
CONTRACT NUMBER: DK54063 (NIDDK)
SOURCE: European journal of immunology, (2004 Apr) Vol. 34, No. 4, pp. 1031-40.
Journal code: 1273201. ISSN: 0014-2980.
PUB. COUNTRY: Germany: Germany, Federal Republic of
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200405
ENTRY DATE: Entered STN: 30 Mar 2004
Last Updated on STN: 22 May 2004
Entered Medline: 21 May 2004
AB Granulocyte-macrophage colony-stimulating factor (GM-CSF) is frequently used in preclinical and clinical protocols to modulate autoimmune responses, bone marrow transplants, and recovery from immune ablative therapies. The immunological outcome of such therapies is not

fully understood. We tested the hypothesis that GM-CSF would enhance the maturation of antigen-presenting cells, facilitating presentation of beta-cell autoantigens to autoreactive T cells. We found that islet expression of GM-CSF greatly enhanced disease in male mice. Islet-derived APC but not splenic APC showed markedly enhanced capacity to stimulate in vitro proliferative responses of islet-antigen-specific autoreactive T cells. In vivo transfer of CD8(+) and CD4(+) T cells demonstrate that autoreactive T cells undergo extensive division in pancreatic lymph nodes of GM -CSF-transgenic mice compared with wild-type NOD male mice. Together, the results presented here demonstrate that expression of GM-CSF in the pancreas can enhance autoimmunity in disease-susceptible mice.

L11 ANSWER 3 OF 39 MEDLINE on STN DUPLICATE 4
ACCESSION NUMBER: 2003138248 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12653342
TITLE: Treatment of insulin resistance in uremia.
AUTHOR: Stefanovic V; Nesic V; Stojimirovic B
CORPORATE SOURCE: Institute of Nephrology and Hemodialysis, Faculty of Medicine, Nis, Serbia.. stefan@ni.ac.yu
SOURCE: The International journal of artificial organs, (2003 Feb) Vol. 26, No. 2, pp. 100-4. Ref: 36
Journal code: 7802649. ISSN: 0391-3988.
PUB. COUNTRY: Italy
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200307
ENTRY DATE: Entered STN: 26 Mar 2003
Last Updated on STN: 18 Jul 2003
Entered Medline: 17 Jul 2003
AB Insulin resistance is a characteristic feature of uremia. As long as the hyperinsulinemia adequate to overcome the insulin resistance, glucose tolerance remains normal. In patients destined to develop type 2 diabetes, the beta cell compensatory response declines, and relative, or absolute, insulin deficiency develops. At this point glucose intolerance and eventually frank type 2 diabetes occur. Insulin resistance and concomitant hyperinsulinemia are present irrespective of the type of renal disease. Several studies have confirmed that hemodialysis (HD) treatment significantly improves insulin resistance. Both CAPD and CCPD are shown to improve insulin resistance in uremic patients. Comparing the effect of PD and HD treatment, it was found that the CCPD group has significantly higher insulin sensitivity than the HD group with the CAPD group similar to HD. Treatment of calcium and phosphate disturbances, including vitamin D therapy, significantly reduces insulin resistance in uremia. Treatment with recombinant human erythropoietin (EPO) is an efficient way to increase hematocrit, to reverse cardiovascular problems and to improve insulin sensitivity. Angiotensin-converting enzyme inhibitors have been shown to improve insulin resistance, hyperinsulinemia and glucose intolerance in uremic patients. Thiazolidinediones (TZDs), the new insulin-sensitizing drugs, provide the proof that pharmacologic treatment of insulin resistance can be of enormous clinical benefit. The great potential of insulin resistance therapy illuminated by the TZDs will continue to catalyze research in this area directed toward the discovery of new insulin-sensitizing agents that work through other mechanisms.

L11 ANSWER 4 OF 39 MEDLINE on STN DUPLICATE 7
ACCESSION NUMBER: 2001700162 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11748649

TITLE: Granulocyte macrophage-colony stimulating factor (GM-CSF) recruits immune cells to the pancreas and delays STZ-induced diabetes.
AUTHOR: Krakowski Michelle; Abdelmalik Robin; Mocnik Lorraine; Krahl Troy; Sarvetnick Nora
CORPORATE SOURCE: Department of Immunology, The Scripps Research Institute, 10550 North Torrey Pines Road, La Jolla, CA 92037, USA.
CONTRACT NUMBER: DK54063 (NIDDK)
SOURCE: The Journal of pathology, (2002 Jan) Vol. 196, No. 1, pp. 103-12.
Journal code: 0204634. ISSN: 0022-3417.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200202
ENTRY DATE: Entered STN: 19 Dec 2001
Last Updated on STN: 5 Feb 2002
Entered Medline: 4 Feb 2002

AB Granulocyte macrophage-colony stimulating factor (GM-CSF) is one of the most widely used growth factors for enhancing immune responses and is known to recruit and activate antigen-presenting cells (APCs). This study hypothesized that overexpression of this cytokine within the pancreatic beta-cells would recruit, expand, and activate APCs. The question was whether this would lead to tolerance or autoimmunity to pancreatic antigens. This possibility was tested by preparing transgenic mice (ins-GM-CSF) whose islets expressed murine GM-CSF. By 6-8 weeks of age, these mice developed a profound mononuclear cell infiltration that often overwhelmed the exocrine pancreas, although no changes in enzyme or hormone function were apparent. The majority of the mononuclear infiltrate within the pancreas was identified as F4/80+ macrophages. Transgenic ins-GM-CSF mice had splenomegaly due to a massive increase in the macrophage population. Additionally, mononuclear cells were found within the livers of transgenic mice, with F4/80+ cells also identified within the infiltrate, indicating that GM-CSF-activated mononuclear cells circulated to organs other than the pancreas. To assess the disease potential, this study tested whether macrophage recruitment to the pancreas might accelerate or protect the islets from diabetes. It was found that the induction of diabetes by low-dose streptozotocin (STZ) was delayed and reduced within ins-GM-CSF transgenic mice, in comparison with negative littermates. Together, these data highlight the role of GM-CSF in recruiting APCs such as macrophages. Advanced cellular infiltration does not overtly harm, and may even protect, pancreatic function, as seen with the delay in chemically induced diabetes.

L11 ANSWER 5 OF 39 MEDLINE on STN DUPLICATE 8
ACCESSION NUMBER: 2002219321 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11956018
TITLE: Altered dendritic cells (DC) might be responsible for regulatory T cell imbalance and autoimmunity in nonobese diabetic (NOD) mice.
AUTHOR: Boudaly Sarah; Morin Joelle; Berthier Rolande; Marche Patrice; Boitard Christian
CORPORATE SOURCE: Laboratoire de Pathologie Metabolique et Hormonale du Developpement, INSERM U. 342, Hopital Saint-Vincent-de-Paul, 82 avenue Denfert Rochereau, 75014 Paris, France.. boudaly@cochin.inserm.fr

SOURCE: European cytokine network, (2002 Jan-Mar) Vol. 13, No. 1, pp. 29-37.
Journal code: 9100879. ISSN: 1148-5493.
PUB. COUNTRY: France
DOCUMENT TYPE: (IN VITRO)
Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200209
ENTRY DATE: Entered STN: 17 Apr 2002
Last Updated on STN: 27 Sep 2002
Entered Medline: 26 Sep 2002

AB Nonobese diabetic (NOD) mice spontaneously develop diabetes, an auto-immune disease characterized by the destruction of insulin-secreting beta-cells by autoreactive T cells. Defects in development and/or functions of dendritic cells (DC) might be critical in eliciting the auto-immune reaction to beta cells in this model. In this paper, DC differentiation in NOD mice was investigated in vitro using bone marrow-derived progenitors (BM-DC) in the presence of GM-CSF and IL-4 or spleen-derived progenitors in the presence of GM-CSF and early acting cytokines such as Flt-3L and IL-6 (SPL-DC). In both culture systems, the absolute number of NOD DC generated was strongly reduced as compared to control strains. In addition, both BM-DC and SPL-DC from NOD mice show defective differentiation into mature DC in conventional culture conditions as indicated by low expression of MHC class II and CD80 molecules among CD11c positive cells and low capacity to stimulate allogeneic T cells. However, DC achieved full maturation when exposed to LPS, except for MHC class II expression that remained decreased. Ex vivo analysis confirmed an unusual phenotype of NOD DC. Both sets of results are thus consistent with a specific defect of DC maturation in these mice.

L11 ANSWER 8 OF 39 MEDLINE on STN DUPLICATE 11
ACCESSION NUMBER: 2001419944 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11467348
TITLE: Manipulation of pancreatic stem cells for cell replacement therapy.
AUTHOR: Peshavaria M; Pang K
CORPORATE SOURCE: Ontogeny, Inc, Cambridge, Massachusetts 02138-1118, USA.. kpang@ontogeny.com
SOURCE: Diabetes technology & therapeutics, (2000 Autumn) Vol. 2, No. 3, pp. 453-60. Ref: 70
Journal code: 100889084. ISSN: 1520-9156.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200108
ENTRY DATE: Entered STN: 13 Aug 2001
Last Updated on STN: 13 Aug 2001
Entered Medline: 9 Aug 2001

AB The demonstration of the existence of tissue-specific adult stem cells has had a great impact on our understanding of stem cell biology and its application in clinical medicine. Their existence has revolutionized the implications for the treatment of many degenerative diseases characterized by either the loss or malfunction of discrete cell types. However, successful exploitation of this opportunity requires that we have sufficient know-how of stem cell manipulation. Because stem cells are the founders of virtually all tissues during embryonic development, we believe that understanding the cellular and molecular mechanisms of embryogenesis

and organogenesis will ultimately serve as a platform to identify factors and conditions that regulate stem cell behavior. Discovery of stem cell regulatory factors will create potential pharmaceutical opportunities for treatment of degenerative diseases, as well as providing critical knowledge of the processes by which stem cells can be expanded in vitro, differentiated, and matured into desired functional cells for implantation into humans. A well-characterized example of this is the hematopoietic system where the discovery of erythropoietin (EPO) and granulocyte-colony stimulating factor (G-CSF), which regulate hematopoietic progenitor cell behavior, have provided significant clinical success in disease treatment as well as providing important insights into hematopoiesis. In contrast, little is known about the identity of pancreatic stem cells, the focus of this review. Recent reports of the potential existence of pancreatic stem cells and their utility in rescuing the diabetic state now raise the same possibilities of generating insulin-producing beta cells as well as other cell types of the pancreatic islet from a stem cell. In this review, we will focus on the potential of these new developments and how our understanding of pancreas development can help design strategies and approaches by which a cell replacement therapy can be implemented for the treatment of insulin-dependent diabetes which is manifested by the loss of beta cells in the pancreas.

L11 ANSWER 9 OF 39 MEDLINE on STN DUPLICATE 14
ACCESSION NUMBER: 1998444378 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9771435
TITLE: Effects of nerve growth factor (NGF) and other fibroblast-derived growth factors on immature human mast cells (HMC-1).
AUTHOR: Welker P; Grabbe J; Grutzkau A; Henz B M
CORPORATE SOURCE: Department of Dermatology, Charite-Virchow Clinic, Humboldt-University, Berlin, Germany.
SOURCE: Immunology, (1998 Jul) Vol. 94, No. 3, pp. 310-7. Journal code: 0374672. ISSN: 0019-2805.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199810
ENTRY DATE: Entered STN: 29 Oct 1998
Last Updated on STN: 3 Mar 2000
Entered Medline: 19 Oct 1998

AB We have previously shown that fibroblast and keratinocyte supernatants up-regulate expression of mast cell characteristics in the human immature mast cell line HMC-1. This effect could not be induced in HMC-1 cells by the well-known mast cell growth factor stem cell factor (SCF), probably due to mutations of the SCF receptor c-Kit in these cells. Here we report the effects of several known fibroblast- and keratinocyte-derived growth factors, namely nerve growth factor (NGF), basic fibroblast growth factor, platelet-derived growth factor and transforming growth factor-beta, on mast cell differentiation, using HMC-1 cells as a model. NGF, at 0.1-50 ng/ml concentrations, caused a marked, dose-dependent up-regulation of tryptase, Fc epsilon RI and histamine within 10 days of culture, associated with an enhanced expression of mRNA for Fc epsilon RI and mast cell tryptase. On restriction analysis, only mast cell beta-tryptase, but not alpha-tryptase, could be demonstrated. Furthermore, the high-affinity NGF receptor (TrkA) was found at both the transcriptional and protein levels, while expression of the low-affinity NGF receptor was detectable at the mRNA level only. None of the other growth factors caused a significant alteration of the mast cell markers studied when added to HMC-1 cells at concentrations known to

be biologically active in other culture systems. Immature human mast cells are thus induced to assume a more mature phenotype in vitro in response to NGF, most probably via stimulation of the high-affinity NGF receptor expressed on these cells. Besides SCF, NGF should therefore be considered as an additional mast cell growth factor that contributes to human mast cell maturation at tissue sites.

L11 ANSWER 11 OF 39 MEDLINE on STN DUPLICATE 17
ACCESSION NUMBER: 97381293 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9238625
TITLE: Renal abnormalities in patients with sickle cell-beta thalassemia.
AUTHOR: Katopodis K P; Elisaf M S; Pappas H A; Theodorou J C; Milionis H J; Bourantas K L; Siamopoulos K C
CORPORATE SOURCE: Department of Internal Medicine, Medical School, University of Ioannina, Greece.
SOURCE: Journal of nephrology, (1997 May-Jun) Vol. 10, No. 3, pp. 163-7.
Journal code: 9012268. ISSN: 1121-8428.
PUB. COUNTRY: Italy
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199708
ENTRY DATE: Entered STN: 8 Sep 1997
Last Updated on STN: 8 Sep 1997
Entered Medline: 28 Aug 1997
AB We examined renal abnormalities in Greek patients with sickle-cell beta thalassemia (S-beta thal). A total of 17 patients aged 16-59 years suffering from S-beta thal and 17 age- and sex-matched healthy controls were studied. In all individuals we carried out a detailed study of renal function including electrolytes in serum and urine, concentrating or diluting ability, urine acidification ability, glomerular filtration rate (GFR), and hormones [such as plasma renin activity (PRA), serum aldosterone, and erythropoietin (EPO)]. Though the GFR did not differ significantly in patients and controls, half the patients had either supranormal or subnormal values. Serum potassium and uric acid were significantly higher in patients than controls. Serum phosphorus was similar in both groups, though patients with S-beta thal had significantly lower phosphate excretion indices. All patients were unable to maximally concentrate the urine, and seven also had limited ability to maximally dilute it. Five patients had incomplete distal renal tubular acidosis. Four had mild proteinuria, and six had microalbuminuria. Serum EPO and aldosterone were higher in S-beta thal patients than controls, but there was no difference in PRA between the two groups. There was a strong correlation between hemoglobin concentration and EPO levels, which was strongest in patients with GFR < 50 ml/min. We conclude that patients with S-beta thal, like sickle-cell anemia patients, present multiple abnormalities of renal function.

L11 ANSWER 12 OF 39 MEDLINE on STN DUPLICATE 18
ACCESSION NUMBER: 97329363 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9185876
TITLE: Monokine-producing cells predominate in the recruitment phase of NOD insulitis while cells producing Th1-type cytokines characterize the effector phase.
AUTHOR: Pilstrom B; Bjork L; Bohme J
CORPORATE SOURCE: Department of Immunology, The Wenner-Gren Institute, Stockholm University, Sweden.
SOURCE: Journal of autoimmunity, (1997 Apr) Vol. 10, No. 2, pp. 147-55.
Journal code: 8812164. ISSN: 0896-8411.

PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals; AIDS
ENTRY MONTH: 199707
ENTRY DATE: Entered STN: 5 Aug 1997
Last Updated on STN: 5 Aug 1997
Entered Medline: 22 Jul 1997

AB Cells infiltrating the Langerhans' islets of prediabetic NOD females were isolated from 6 weeks to 6 months of age. These cells were assayed at a single-cell level for production of eight different cytokines by intracellular immunofluorescent staining. Quiescent in vivo preactivated cells were detected by in vitro stimulation with PMA and ionomycin for 4 h. The cell recruitment phase, between 6 and 12 weeks of age, is predominated by production of the monokines IL-1alpha, IL-6, and TNF After stimulation IFN-gamma and occasional IL-10 and GM-CSF producing cells could also be observed. This cytokine pattern occurs simultaneously with increasing insulitis, and we suggest that these cytokines are important in attracting inflammatory cells to the islets and maintaining the inflammatory state. A high frequency of endocrine cells producing IL-6 during this period may denote a stress response caused by initial beta-cell destruction due to cytokines released by the inflammatory cells. During the effector phase, between 4 and 6 months, there is a characteristic Th1 cytokine profile with lymphocytes producing IL-2, IFN-gamma and TNF, supposedly TNF-beta. No IL-4 production could be detected and IL-10 was very rarely found, indicating the absence of a Th2 response. Our findings show that the effector phase in NOD insulitis is a Th1 rather than a Th2-mediated event. We also demonstrate that cytokines that may cause initial tissue destruction are produced during the recruitment of inflammatory cells.

L11 ANSWER 13 OF 39 MEDLINE on STN DUPLICATE 19
ACCESSION NUMBER: 96310456 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8740398
TITLE: Effects of certain growth factors on in vitro maturation of rat fetal islet-like structures.
AUTHOR: Oberg-Welsh C; Welsh M
CORPORATE SOURCE: Department of Medical Cell Biology, Uppsala University, Sweden.
SOURCE: Pancreas, (1996 May) Vol. 12, No. 4, pp. 334-9.
Journal code: 8608542. ISSN: 0885-3177.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199610
ENTRY DATE: Entered STN: 25 Oct 1996
Last Updated on STN: 3 Mar 2000
Entered Medline: 17 Oct 1996

AB We have previously studied the expression of protein tyrosine kinases in different preparations of insulin producing cells by polymerase chain reaction (PCR). Among the tyrosine kinases thus identified were the fibroblast growth factor receptor-4 (FGFR-4), c-Kit, the insulin-like growth factor (IGF-I) receptor, and the cytoplasmic tyrosine kinase Jak2, which associates with the activated receptor for growth hormone (GH). To elucidate the putative biological effects of the receptors identified, fetal islet-like structures were cultured in the absence or presence of the ligands to the receptors identified, namely, acidic FGF (aFGF), stem-cell factor (SCF), IGF-I, and GH, whereafter insulin and DNA contents as well as insulin secretion to the culture medium were

determined. Nerve growth factor (NGF), the ligand to the tyrosine kinase receptor Trk-A, was also included. aFGF and GH were found to stimulate insulin release to the culture medium, whereas SCF augmented insulin contents/DNA as well as islet DNA contents. No effects of NGF or IGF-I were detected. Immunohistochemical studies of fetal rat pancreas showed localization of the c-Kit protein to the pancreatic ducts, whereas immuno-reactivity against FGFR-4 could be detected in both endocrine and exocrine parts of the pancreas as well as in the pancreatic ducts. It is concluded that tyrosine kinase receptors may be involved in the maturation of pancreatic beta cells.

L11 ANSWER 14 OF 39 MEDLINE on STN DUPLICATE 20
ACCESSION NUMBER: 96274089 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8673041
TITLE: Immunologic attributes of cytokine mobilized peripheral blood stem cells and recovery following transplantation.
AUTHOR: Talmadge J E; Reed E C; Kessinger A; Kuszynski C A; Perry G A; Gordy C L; Mills K C; Thomas M L; Pirruccello S J; Letheby B A; Arneson M A; Jackson J D
CORPORATE SOURCE: Department of Pathology/Microbiology, University of Nebraska Medical Center, Omaha 68198-5660, USA.
CONTRACT NUMBER: R01-CA61593 (NCI)
SOURCE: Bone marrow transplantation, (1996 Jan) Vol. 17, No. 1, pp. 101-9.
Journal code: 8702459. ISSN: 0268-3369.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199608
ENTRY DATE: Entered STN: 22 Aug 1996
Last Updated on STN: 22 Aug 1996
Entered Medline: 9 Aug 1996

AB The immunologic attributes of cytokine mobilized peripheral blood stem cell (PSC) products (n = 52) and the resulting reconstitution of the hematopoietic and immunologic system following autologous transplantation were examined in a consecutive population of non-Hodgkin lymphoma (NHL), or solid tumor patients at the University of Nebraska Medical Center. Granulocyte-monocyte colony stimulating factor (GM-CSF)-mobilized PSC products had a high frequency of monocytes (31%) and bands (15%) as compared to normal peripheral blood (PB) cells. The phenotypic analysis of the mobilized PSC product revealed that they had normal levels of CD4+ cells, an increased frequency of CD8+ cells and a corresponding decrease in the CD4+:CD8+ cell ratio as compared to the peripheral blood leukocytes (PBL) of normal individuals. PSC products also had an increase in CD34+ cells as compared to PB. Natural killer (NK) and T cell activity in the PSC products were also lower than that observed in PB. Post-transplantation there was an accelerated reconstitution of NK-cell function in the PB as compared to T cell function (PHA (phytohemagglutinin) mitogenesis) which did not return to normal by day 100 post-transplantation. We also report for the first time high levels of an irradiation resistant suppressor cell activity in the PSC product and in the PB post-transplantation. There was also a concomitant increase in CD4-, CD8-, TCR alpha/beta+ cells (phenotypic homolog of 'natural suppressor' (NS) cells) in the PB post-transplantation. The number of months of prior chemotherapy correlated with PHA response but the NS activity and frequency of CD4-, CD8- and TCR alpha/beta+ cells did not. Further, cytokine mobilization and apheresis appears to contribute to the loss of PHA responsiveness and the increased levels of suppressor cell activity.

L11 ANSWER 17 OF 39 MEDLINE on STN DUPLICATE 23
ACCESSION NUMBER: 95114128 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7529261
TITLE: Kinetics and regulation of human keratinocyte stem cell growth in short-term primary ex vivo culture. Cooperative growth factors from psoriatic lesional T lymphocytes stimulate proliferation among psoriatic uninvolved, but not normal, stem keratinocytes.
AUTHOR: Bata-Csorgo Z; Hammerberg C; Voorhees J J; Cooper K D
CORPORATE SOURCE: Immunodermatology Unit, University of Michigan, Ann Arbor 48109-0530.
SOURCE: The Journal of clinical investigation, (1995 Jan) Vol. 95, No. 1, pp. 317-27.
Journal code: 7802877. ISSN: 0021-9738.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
(RESEARCH SUPPORT, U.S. GOV'T, NON-P.H.S.)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 199502
ENTRY DATE: Entered STN: 17 Feb 1995
Last Updated on STN: 29 Jan 1996
Entered Medline: 9 Feb 1995
AB Flow cytometric analysis of primary ex vivo keratinocyte cultures demonstrated that stem cells, (beta 1 integrin+, keratin 1/keratin 10 [K1/K10-], proliferating cell nuclear antigen [PCNA-] [Bata-Csorgo, Zs., C. Hammerberg, J. J. Voorhees, and K. D. Cooper. 1993. J. Exp. Med. 178:1271-1281]) establish such cultures. This methodology also enabled the quantitation of synchronized recruitment of these cells from G0 into G1 of the cell cycle (PCNA expression), which preceded bright beta 1 integrin expression. (beta 1 integrinbright expression has been shown to be a characteristic feature of keratinocyte stem cells in culture (Jones, P. H., and F. M. Watt. 1993. Cell. 73:713-724). Using the above assay, we determined whether lesional T lymphocytes in psoriasis could be directly responsible for the induction of the stem cell hyperproliferation that is characteristic of this disease. Indeed, CD4+ T lymphocytes, cloned from lesional psoriatic skin and stimulated by immobilized anti-CD3 plus fibronectin, promoted psoriatic uninvolved keratinocyte stem cell proliferation via soluble factors. This induction appeared to be through accelerated recruitment of stem cells from their quiescent state (G0) into cell cycle. By contrast, normal keratinocyte stem cells exhibited no such growth stimulation. Supernatants exhibiting growth induction all contained high levels of GM-CSF and gamma-IFN, low IL-3 and TNF-alpha, and variable IL-4. Only anti-gamma-IFN antibody was able to neutralize growth stimulatory activity of the supernatants on psoriatic uninvolved keratinocyte stem cells. However, because recombinant gamma-IFN alone inhibited growth in this assay, these data suggest that, in psoriasis, gamma-IFN acts cooperatively with other growth factors in the immune induction of cell cycle progression by the normally quiescent stem cell keratinocytes.

L11 ANSWER 20 OF 39 MEDLINE on STN DUPLICATE 26
ACCESSION NUMBER: 92063010 MEDLINE
DOCUMENT NUMBER: PubMed ID: 1954374
TITLE: Granulocyte-macrophage colony-stimulating factor-dependent growth and erythropoietin-induced differentiation of a human cell line MB-02.
AUTHOR: Morgan D A; Gumucio D L; Brodsky I
CORPORATE SOURCE: Department of Neoplastic Diseases, Hahnemann University,

Philadelphia, PA 19102.
CONTRACT NUMBER: CA29545 (NCI)
CA44329 (NCI)
HL33940 (NHLBI)
SOURCE: Blood, (1991 Dec 1) Vol. 78, No. 11, pp. 2860-71.
Journal code: 7603509. ISSN: 0006-4971.
PUB. COUNTRY: United States
DOCUMENT TYPE: (IN VITRO)
Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 199112
ENTRY DATE: Entered STN: 24 Jan 1992
Last Updated on STN: 3 Feb 1997
Entered Medline: 31 Dec 1991

AB Peripheral blood blasts from a patient with acute megakaryoblastic leukemia were placed into liquid cultures with recombinant growth factors. Growth, but not differentiation, was supported by interleukin-3 (IL-3) or granulocyte-macrophage colony-stimulating factor (GM-CSF) for the first 30 days of culture. Sustained growth occurred only with GM-CSF and gave rise to the cell line MB-02, which has been in continuous culture for over 1 year. The cell line retained the surface phenotype of the leukemic megakaryoblasts except for the loss of glycoproteins Ib and IIb/IIIa, which were induced after exposure to phorbol esters. The induction of erythropoiesis occurred when GM -CSF-deprived cells were cultured with erythropoietin (Epo). Well-defined morphologic stages of differentiation ranging from primitive erythroblasts to nuclei-extruding normoblasts were seen. Transforming growth factor-beta inhibited GM-CSF- and Epo-dependent growth, but not erythroid maturation. Indirect immunofluorescence using globin chain-specific monoclonal antibodies detected fetal, but not adult hemoglobin in the uninduced cells. beta-globin was induced and gamma-globin was increased after Epo exposure. Both globin species accumulated in the developing erythrocytes until terminal differentiation. Quantitative S1 analysis of beta-like globin transcripts showed very low levels of epsilon- and beta-globin expression and high levels of gamma-globin expression in cells maintained in GM-CSF. Five days after induction with Epo, epsilon message decreased to barely detectable levels while gamma and beta transcripts increased threefold and 20-fold, respectively. This novel cell line not only retains many characteristics of the leukemic megakaryoblasts from which it was derived, but also can be induced to recapitulate apparent normal erythropoiesis.

L11 ANSWER 24 OF 39 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
ACCESSION NUMBER: 2006:78916 BIOSIS
DOCUMENT NUMBER: PREV200600085657
TITLE: GLP-1 induced differentiation of pancreatic ductal precursor cell line to insulin-producing cells.
AUTHOR(S): Lee, Ji Eun; Wen, Jing; Kim, Han-Soo; Park, Setting Woo; Chung, Jae-Bock; Kang, Jin-Kyung; Song, Si Young
SOURCE: Gastroenterology, (APR 2004) Vol. 126, No. 4, Suppl. 2, pp. A529.
Meeting Info.: Digestive Disease Week/105th Annual Meeting of the American-Gastroenterological-Association. New Orleans, LA, USA. May 16 -20, 2004. Amer Gastroenterol Assoc.
CODEN: GASTAB. ISSN: 0016-5085.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)

LANGUAGE: English
ENTRY DATE: Entered STN: 25 Jan 2006
Last Updated on STN: 25 Jan 2006

AB Backgrounds. Glucagon-like peptide-1 is an intestinal incretin hormone, derived from the processing of proglucagon, that exerts insulinotropic actions on insulin-producing pancreatic beta-cells. We established multipotential progenitor cells in the pancreas, termed YGIC cell lines that are transdifferentiated from adult pancreatic acinar cell to ductal progenitor cells. Our aims are to analyze the effects of GJ_P-1 on the transdifferentiation of the established normal rat pancreatic ductal cells and to investigate the potential role of GLP-1 for the future cell therapy using normal pancreatic duct cells as a pancreatic precursor cell. Methods : Treatment with recombinant GLP-1 was carried out in the absence of serum. YGIC cells are transfected with pBX322/GLP-1 to make inducible transfectant producing GLP-1. We identified the expression of SCF, c-kit, PDX-1, Pax-4, Pax-6, Ngn-3, NeuroD, insulin, glucagon and CFTR and by western blotting, RT-PCR and ELISA methods. Results. While Hes-1, Notch-1, neuroD, Shh, Pax6 key players of embryonic pancreas development, were not modulated by the treatment of GLP-1 ngn-3 and pdx-1 was down-regulated by GLP-1 Stem cell markers, SCF and c-kit were induced by the treatment of GLP-1, whereas CFTR, ductal marker, was down-regulated. Furthermore, GLP-1 treatment induced both insulin and glucagon in YGIC cells. GLP-1, however, failed to modulate Glut-2 and glucokinase implying that this factor affects early events of endocrine differentiation, but not terminal differentiation in these cells. Conclusions : GLP-1 stimulates the differentiation of ductal progenitor cells into insulin-producing cells. These findings suggest a model of islet development in that pancreatic progenitor cells differentiated into pancreatic endocrine cells that express GLP-1 receptors, glucagons, PDX-1 and insulin.

L11 ANSWER 34 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:144820 CAPLUS
TITLE: A reduced-fat diet and aerobic exercise in Japanese Americans with impaired glucose tolerance decreases intra-abdominal fat and improves insulin sensitivity but not β-cell function
AUTHOR(S): Carr, Darcy B.; Utzschneider, Kristina M.; Boyko, Edward J.; Asberry, Pamela J.; Hull, Rebecca L.; Kodama, Keiichi; Callahan, Holly S.; Matthys, Colleen C.; Leonetti, Donna L.; Schwartz, Robert S.; Kahn, Steven E.; Fujimoto, Wilfred Y.
CORPORATE SOURCE: Department of Obstetrics and Gynecology, University of Washington, Seattle, WA, 98195-6460, USA
SOURCE: Diabetes (2004), Volume Date 2005, 54(2), 340-347
CODEN: DIAEAZ; ISSN: 0012-1797
PUBLISHER: American Diabetes Association
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Lifestyle modification reduces the risk of developing type 2 diabetes and may have its effect through improving insulin sensitivity, .beta .-cell function, or both. To determine whether diet and exercise improve insulin sensitivity and/or β -cell function and to evaluate these effects over time, we quantified insulin sensitivity and the acute insulin response to glucose (AIRg) in 62 Japanese Americans (age 56.5 ± 1.3 years; mean ± SE) with impaired glucose tolerance (IGT) who were randomized to the American Heart Association (AHA) Step 2 diet plus endurance exercise (n = 30) vs. the AHA Step 1 diet plus stretching (n = 32) for 24 mo. β -Cell function (disposition index [DI]) was calculated as Si + AIRg, where Si is the insulin sensitivity index. The incremental area under the curve

for glucose (incAUCg) was calculated from a 75-g oral glucose tolerance test. Intra-abdominal fat (IAF) and s.c. fat (SCF) areas were measured by computed tomog. At 24 mo, the Step 2/endurance group had lower weight (63.1 ± 2.4 vs. 71.3 ± 2.9 kg; P = 0.004) and IAF (75.0 ± 7.9 vs. 112.7 ± 10.4 cm2; P = 0.03) and SCF (196.5 ± 18.0 vs. 227.7 ± 19.9 cm2; P < 0.001) areas, greater Si (4.7 ± 0.5 vs. 3.3 ± 0.3 + 10-5 min · pmol-1 · l-1; P = 0.01), and a trend toward lower AIRg (294.9 ± 50.0 vs. 305.4 ± 30.0 pmol/l; P = 0.06) and incAUCg (8,217.3 ± 350.7 vs. 8,902.0 ± 367.2 mg · dl-1 · 2 h-1; P = 0.08) compared with the Step 1/stretching group after adjusting for baseline values. There was no difference in the DI (P = 0.7) between the groups. Si was associated with changes in weight (r = -0.426, P = 0.001) and IAF (r = -0.395, P = 0.003) and SCF (r = -0.341, P = 0.01) areas. Thus, the lifestyle modifications decreased weight and central adiposity and improved insulin sensitivity in Japanese Americans with IGT. However, such changes did not improve .beta .-cell function, suggesting that this degree of lifestyle modifications may be limited in preventing type 2 diabetes over the long term.

REFERENCE COUNT: 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 36 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1994:628581 CAPLUS
DOCUMENT NUMBER: 121:228581
TITLE: Islet expression of interferon-α proceeds diabetes in both the BB rat and streptozotocin-treated mice
AUTHOR(S): Huang, Xiaojian; Hultgren, Bruce; Dybdal, Noel; Stewart, Timothy A.
CORPORATE SOURCE: Dep. of Endocrine Res., Genentech, Incorporated, South San Francisco, CA, 94080, USA
SOURCE: Immunity (1994), 1(6), 469-78
CODEN: IUNIEH; ISSN: 1074-7613
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The mechanism(s) leading to β cell dysfunction in type I diabetes has not been defined. The authors investigated whether islet expression of IFNα could be a cause of the lesions that are hallmarks of type I diabetes. Streptozotocin induces the expression of interferon-α by pancreatic islets prior to the diabetes induced by streptozotocin. Increased IFNα, induced by poly I/C or expressed from a transgene will exacerbate the diabetogenic effects of streptozotocin. In another rodent model of type I diabetes (the BB rat), islet expression of IFNα precedes lymphocytic infiltration and diabetes. As in the streptozotocin model, in the BB rats poly I/C will induce islet expression of IFNα and accelerate the onset of diabetes. These results are consistent with the hypothesis that islet expression of IFNα participates in causing type I diabetes.

L11 ANSWER 38 OF 39 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 2002034180 EMBASE
TITLE: Leptin and the pituitary.
AUTHOR: Sone M.; Osamura R.Y.
CORPORATE SOURCE: Dr. R.Y. Osamura, Department of Pathology, Tokai University School of Medicine, Bohseidai, Isehara, Kanagawa 259-1193, Japan. osamura@is.icc.u-tokai.ac.jp
SOURCE: Pituitary, (2001) Vol. 4, No. 1-2, pp. 15-23.
Refs: 64
ISSN: 1386-341X CODEN: PITUF9
COUNTRY: United States

DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 022 Human Genetics
029 Clinical and Experimental Biochemistry
003 Endocrinology
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 7 Feb 2002
Last Updated on STN: 7 Feb 2002

AB In 1994, Zhang et al. of Rockefeller University in New York reported the first successful complementary DNA (cDNA) cloning of leptin by the positional cloning method. Leptin was identified as the gene of ob/ob mouse in genetic obesity syndromes. It has very strong food intake control, and body weight and energy expenditure. The name "leptin" derived from the Greek word leptos, meaning "thin." We hereby review major advances leading to our current finding of leptin, leptin receptor and its structure, the outline of homozygote, and also influence of leptin in the pituitary. (The structure of leptin) The mouse obese gene has been localized to chromosome 6. With human leptin gene on chromosome 7q31.3, its DNA has more than 15000 base pairs and consists of three exons and two introns. For bioactivation of leptin the importance of disulfide-binding site is suggested. Human leptin which replaced the 128-th arginine with glutamine has the function of an aldosteron antagonist, which is reported to have the function of athrocytosis inhibition. The resemblance of leptin precursor of human, mouse and rat is very high, i.e., mouse and rat homology is 96% and mouse and human homology is 83%. (The structure of leptin receptor) The mutant gene, which is the cause of obesity, was shown on map on diabetic mouse (db/db) chromosome 4, and it was proven to be the same as the leptin receptor gene cloned by Tartaglia et all. Further studies have found the Zucker fatty rat (fa/fa) to be incorporated into a linkage map of rat chromosome 5, whose region of rat is the equivalent to the region of conserved synteny of the db/db mouse gene. The leptin receptor is glycoprotein consisting of a single transmembrane-spanning component. The primary structure of leptin receptor belongs to the cytokine-class1 family, the single membrane-spanning receptor, and is highly related to the gp130 signal-transducing component of the interleukin-6 (IL-6) receptor, the granulocyte colony-stimulating factor (G-CSF) receptor, and the leukemia inhibitory factor (LIF) receptor. The leptin receptor is known to have at least six existing isoforms (Ob-Ra, b, c, d, e, f) from the difference in splicing. (Homozygote Mutation of Leptin and Leptin Receptor :Hormone Secretion Disorders) The point mutation of ob/ob mouse and the splicing mutation of db/db mouse show remarkable obesity and hyperphagia. These obesity models show a reproduction disorder with both the male and the female, and they develop with homozygote. The cause is thought to be the gonadotropin secretory abnormality in pituitary. Three family lines report the cases of this deficiency, and it is considered that the secretory abnormality in pituitary develops into hypogonadotropic. These patients show low value in plasma FSHβ (follicle stimulating hormone-β and LHβ (luteinizing hormone-β which are produced from pituitary, and the plasma GnRH (gonadotropin releasing hormone) level is also low. Furthermore, the leptin receptor deficient family line was reported in 1998, in which case only the homozygote developed. The plasma leptin concentration of normal human is about 8.0 ng/ml, and this case with leptin receptor deficiency has high value of 500-700 ng/ml, which is the equivalent to the db/db mouse. (Role of Leptin in Hypothalamus-Pituitary-Periphery Function) The role of leptin which regulates pituitary hormones suggests the promotion the GHRH (growth hormone releasing hormone) secretion in hypothalamus-pituitary axis, with the possibility of the rise in secretion of GH (growth hormone) in pituitary, i.e. effects of icv (intracerebroventricular) infusion of leptin has spontaneously stimulated GHRH, which promotes GH secretion in the normal rats. On the other hand, topical treatment of GH3 (derived from a rat pituitary GH-secreting cell

line) with leptin directly inhibits cell proliferation. The obesity model animals (ob/ob, db/db, fa/fa) have equally plump body compared to the normal models, which shows signs of sufficient growth. (Localization and Functional Relevance of Leptin and Leptin Receptor in Rodents Pituitary) Aside from being the food intake inhibitor and the energy control factor, leptin takes part in controlling the pituitary hormones. Promoting the secretion of GH, PRL (prolactin), TSHβ (thyroid stimulating hormone-β, FSHβ/LHβ, and inhibiting the secretion of ACTH (adrenocorticotropic hormone) are the major changes of pituitary hormones which are brought on by leptin. The expressive localization is specific, and immunohistochemistry (IHC) method recognized leptin in granular state in FSHβ, LHβ and TSHβ positive cells. In our biochemical examination, the bulk of the expression of leptin is recognized in fraction of the secretory granule. In particular, FSHβ cells had the highest percentage rate of colocalized leptin in rat pituitary. On the other hand, leptin receptor has been reported to be found only in normal rat pituitary, human pituitary adenoma, and respective cell lines in pituitaries by the RT-PCR method until now, but we disclosed for the first time the localization of leptin receptor on the plasma membrane of GH-secreting cells with the IHC method that has not been cleared so far. These findings show that leptin and leptin receptor have been expressed in different cells, and that the rat pituitary glands entertain paracrine mechanism between leptin (FSHβ/LH β cells) and leptin receptor (GH cells). The function of paracrine in this pituitary suggests a new point of view in hypothalamus-pituitary axis, and it shall be concerned with many aspects such as hormone secretions and proliferation/inhibition. (Human Pituitary Adenoma) Preliminary report of leptin and leptin-receptor relationship with pituitary adenoma that has secretion abnormality has been filed, and its manifestation is being observed by the RT-PCR. Leptin and leptin receptor are expressed in most adenoma, and it is thought to function by autocrine and paracrine pathway in the adenomas. Leptin has been located in ACTH-secreting adenoma most frequently, especially in ACTH carcinoma. The leptin receptor is detected in all adenomas with high percentage rate, with both long and short forms, and then many cases of nonfunctioning pituitary adenomas, compared with other adenomas, have been reported to be positive with both long and short forms of leptin receptor as detected by RT-PCR. The HP75 cell line is derived from the nonfunctioning pituitary adenoma, which produces FSHβ and LHβ. The expression of leptin receptor in nonfunctioning pituitary adenoma, and the suppression of HP75 multiplication may lead to the possible hypothesis of leptin becoming one factor for the treatment of pituitary adenoma, especially in gonadotropin adenomas.

=> Log h

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	197.10	197.31

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-3.90	-3.90

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 NEWS  2  JUL 02  LMEDLINE coverage updated
 NEWS  3  JUL 02  SCISEARCH enhanced with complete author names
 NEWS  4  JUL 02  CHEMCATS accession numbers revised
 NEWS  5  JUL 02  CA/CAplus enhanced with utility model patents from China
 NEWS  6  JUL 16  CAplus enhanced with French and German abstracts
 NEWS  7  JUL 18  CA/CAplus patent coverage enhanced
 NEWS  8  JUL 26  USPATFULL/USPAT2 enhanced with IPC reclassification
 NEWS  9  JUL 30  USGENE now available on STN
 NEWS 10  AUG 06  CAS REGISTRY enhanced with new experimental property tags
 NEWS 11  AUG 06  BEILSTEIN updated with new compounds
 NEWS 12  AUG 06  FSTA enhanced with new thesaurus edition
 NEWS 13  AUG 13  CA/CAplus enhanced with additional kind codes for granted
                  patents
 NEWS 14  AUG 20  CA/CAplus enhanced with CAS indexing in pre-1907 records
 NEWS 15  AUG 27  Full-text patent databases enhanced with predefined
                  patent family display formats from INPADOCDB
 NEWS 16  AUG 27  USPATOLD now available on STN
 NEWS 17  AUG 28  CAS REGISTRY enhanced with additional experimental
                  spectral property data
 NEWS 18  SEP 07  STN AnaVist, Version 2.0, now available with Derwent
                  World Patents Index
 NEWS 19  SEP 13  FORIS renamed to SOFIS
 NEWS 20  SEP 13  INPADOCDB enhanced with monthly SDI frequency
 NEWS 21  SEP 17  CA/CAplus enhanced with printed CA page images from
                  1967-1998
 NEWS 22  SEP 17  CAplus coverage extended to include traditional medicine
                  patents
 NEWS 23  SEP 24  EMBASE, EMBAL, and LEMBASE reloaded with enhancements

 NEWS EXPRESS  19 SEPTEMBER 2007:  CURRENT WINDOWS VERSION IS V8.2,
               CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
               AND CURRENT DISCOVER FILE IS DATED 19 SEPTEMBER 2007.

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=> S Diabetes(S)(Stem(A)Cell) AND pd<=20040415
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index.  Enter "HELP COMMANDS" at an arrow prompt (=>) for a list of
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                                                         ENTRY    SESSION
FULL ESTIMATED COST                                       3.36       3.36

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=> S Diabetes(S)(Stem(A)Cell) AND pd<=20040415
   2 FILES SEARCHED...
L1         449 DIABETES(S)(STEM(A) CELL) AND PD<=20040415

=> S Diabetes(S)(Stem(A)Cell)(S)G-CSF AND pd<=20040415
   2 FILES SEARCHED...
   3 FILES SEARCHED...
L2           1 DIABETES(S)(STEM(A) CELL)(S) G-CSF AND PD<=20040415

=> D ibib Abs l2

L2   ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:        2004:308361  CAPLUS
DOCUMENT NUMBER:         140:297529
TITLE:                   Adult bone marrow-derived stem cells for treating a
                         diabetic condition
INVENTOR(S):             Hussain, Mehboob
PATENT ASSIGNEE(S):      New York University, USA
SOURCE:                  PCT Int. Appl., 44 pp.
                         CODEN: PIXXD2
DOCUMENT TYPE:           Patent
LANGUAGE:                English
FAMILY ACC. NUM. COUNT:  1
PATENT INFORMATION:

     PATENT NO.          KIND   DATE        APPLICATION NO.         DATE
     ---------------     ----   --------    --------------------    --------
     WO 2004030628        A2    20040415    WO 2003-US31116         20031002 <--
     WO 2004030628        A9    20040527
     WO 2004030628        A3    20041104
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE,
             GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK,
             LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ,
             OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
             TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
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FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2003277205	A1	20040423	AU 2003-277205	20031002
US 2004136969	A1	20040715	US 2003-676261	20031002
PRIORITY APPLN. INFO.:			US 2002-415091P	P 20021002
			WO 2003-US31116	W 20031002

AB The invention provides a method for treating a diabetic condition in a mammal by administering autologous or non-autologous bone marrow, or an effective subpopulation thereof. The invention also provides a method for stimulating the mobilization and differentiation of bone marrow derived cells into pancreatic islet cells.

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NEWS 2	JAN 02	STN pricing information for 2008 now available
NEWS 3	JAN 16	CAS patent coverage enhanced to include exemplified prophetic substances
NEWS 4	JAN 28	USPATFULL, USPAT2, and USPATOLD enhanced with new custom IPC display formats
NEWS 5	JAN 28	MARPAT searching enhanced
NEWS 6	JAN 28	USGENE now provides USPTO sequence data within 3 days of publication
NEWS 7	JAN 28	TOXCENTER enhanced with reloaded MEDLINE segment
NEWS 8	JAN 28	MEDLINE and LMEDLINE reloaded with enhancements
NEWS 9	FEB 08	STN Express, Version 8.3, now available
NEWS 10	FEB 20	PCI now available as a replacement to DPCI
NEWS 11	FEB 25	IFIREF reloaded with enhancements
NEWS 12	FEB 25	IMSPRODUCT reloaded with enhancements
NEWS 13	FEB 29	WPINDEX/WPIDS/WPIX enhanced with ECLA and current U.S. National Patent Classification
NEWS 14	MAR 31	IFICDB, IFIPAT, and IFIUDB enhanced with new custom IPC display formats
NEWS 15	MAR 31	CAS REGISTRY enhanced with additional experimental spectra
NEWS 16	MAR 31	CA/CAplus and CASREACT patent number format for U.S. applications updated
NEWS 17	MAR 31	LPCI now available as a replacement to LDPCI
NEWS 18	MAR 31	EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS 19	APR 04	STN AnaVist, Version 1, to be discontinued

NEWS EXPRESS FEBRUARY 08 CURRENT WINDOWS VERSION IS V8.3,
AND CURRENT DISCOVER FILE IS DATED 20 FEBRUARY 2008

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FILE 'HOME' ENTERED AT 16:39:38 ON 09 APR 2008

=> File .gerry2MBCE
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                       0.42       0.42

FILE 'MEDLINE' ENTERED AT 16:40:48 ON 09 APR 2008

FILE 'BIOSIS' ENTERED AT 16:40:48 ON 09 APR 2008
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=> S (colony stimulating factor) (S)(diabetes OR pancreas OR beta cell) AND
pd<=20040415
   1 FILES SEARCHED...
L1         114 (COLONY STIMULATING FACTOR) (S)(DIABETES OR PANCREAS OR BETA
               CELL) AND PD<=20040415

=> Dup rem L1
PROCESSING COMPLETED FOR L1
L2           74 DUP REM L1 (40 DUPLICATES REMOVED)
                ANSWERS '1-18' FROM FILE MEDLINE
                ANSWERS '19-22' FROM FILE BIOSIS
                ANSWERS '23-72' FROM FILE CAPLUS
                ANSWERS '73-74' FROM FILE EMBASE

=> D Ti L2 1-74

L2   ANSWER 1 OF 74     MEDLINE on STN                  DUPLICATE 1
TI   Insulin cell mass is altered in Csf1op/Csf1op macrophage-deficient mice.

L2   ANSWER 2 OF 74     MEDLINE on STN                  DUPLICATE 2
TI   Regulatory Th2 response induced following adoptive transfer of dendritic
     cells in prediabetic NOD mice.

L2   ANSWER 3 OF 74     MEDLINE on STN                  DUPLICATE 3
TI   Macrophages from high-risk HLA-DQB1*0201/*0302 type 1 diabetes mellitus
     patients are hypersensitive to lipopolysaccharide stimulation.
```

L2 ANSWER 4 OF 74 MEDLINE on STN DUPLICATE 5
TI Granulocyte macrophage-colony stimulating factor (GM-CSF) recruits immune cells to the pancreas and delays STZ-induced diabetes.

L2 ANSWER 5 OF 74 MEDLINE on STN DUPLICATE 6
TI Randomized prospective controlled trial of recombinant granulocyte colony-stimulating factor as adjunctive therapy for limb-threatening diabetic foot infection.

L2 ANSWER 6 OF 74 MEDLINE on STN DUPLICATE 7
TI Older patients with high-risk fungal infections can be successfully allografted using non-myeloablative conditioning in combination with intensified supportive care regimens.

L2 ANSWER 7 OF 74 MEDLINE on STN DUPLICATE 8
TI Intradermal ras peptide vaccination with granulocyte-macrophage colony-stimulating factor as adjuvant: Clinical and immunological responses in patients with pancreatic adenocarcinoma.

L2 ANSWER 8 OF 74 MEDLINE on STN DUPLICATE 9
TI Effect of G-CSF on ethanol-induced hemorrhagic gastritis model in diabetes mellitus-induced rats.

L2 ANSWER 9 OF 74 MEDLINE on STN DUPLICATE 10
TI Improvement of an impaired chemiluminescence response to formyl-methionyl-leucyl-phenylalanine in neutrophils from patients with non insulin dependent diabetes mellitus by recombinant human granulocyte-colony stimulating factor.

L2 ANSWER 10 OF 74 MEDLINE on STN DUPLICATE 11
TI Granulocyte-colony stimulating factor produced by pancreatic carcinoma.

L2 ANSWER 11 OF 74 MEDLINE on STN DUPLICATE 12
TI Reduced hydrogen peroxide production in neutrophils from patients with diabetes.

L2 ANSWER 12 OF 74 MEDLINE on STN DUPLICATE 13
TI Use of granulocyte-macrophage colony-stimulating factor for reversal of neutropenia following combined kidney-pancreas transplantation.

L2 ANSWER 13 OF 74 MEDLINE on STN DUPLICATE 14
TI Effect of macrophage colony-stimulating factor on the development of diabetes mellitus in BB rats.

L2 ANSWER 14 OF 74 MEDLINE on STN DUPLICATE 15
TI Stimulation of pancreas and gastric carcinoma cell growth by interleukin 3 and granulocyte-macrophage colony-stimulating factor.

L2 ANSWER 15 OF 74 MEDLINE on STN DUPLICATE 16
TI Recombinant human tumor necrosis factor alpha suppresses autoimmune diabetes in nonobese diabetic mice.

L2 ANSWER 16 OF 74 MEDLINE on STN DUPLICATE 17
TI Chromosome assignment of mouse insulin, colony stimulating factor 1, and low-density lipoprotein receptors.

L2 ANSWER 17 OF 74 MEDLINE on STN
TI Insulin dependent diabetes mellitus induced by chemotherapy and granulocyte, macrophage--colony stimulating

factor.

L2 ANSWER 18 OF 74 MEDLINE on STN
TI Colony stimulating factor producing carcinoma of the pancreas--a case report.

L2 ANSWER 19 OF 74 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI GM-CSF enhances antigen presenting cell recruitment and predisposes male NOD mice to IDDM.

L2 ANSWER 20 OF 74 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI INDUCTION OF CYTOKINE SECRETION BY A HUMAN INSULINOMA CELL LINE BY VIRAL INFECTION.

L2 ANSWER 21 OF 74 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI GM-CSF-INDUCED INCREASE IN ADCC AGAINST HUMAN CANCER CELLS IN-VITRO.

L2 ANSWER 22 OF 74 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI CYTOKINES IN ENDOCRINOLOGY THEIR ROLES IN HEALTH AND IN DISEASE.

L2 ANSWER 23 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN DUPLICATE 4
TI Interleukin-7 inhibits pre-T-cell differentiation induced by the pre-T-cell receptor signal and the effect is mimicked by hGM-CSF in hGM-CSF receptor transgenic mice

L2 ANSWER 24 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI Sequences of human glucagon-like 1 peptide (GLP-1) and use for treating diabetes and other blood sugar disorders

L2 ANSWER 25 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI Adjunctive granulocyte colony-stimulating factor therapy for diabetic foot infections

L2 ANSWER 26 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI Increased islet antigen presentation leads to type-1 diabetes in mice with autoimmune susceptibility

L2 ANSWER 27 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI AGEs, macrophage colony stimulating factor and vascular adhesion molecule blood levels are increased in patients with diabetic microangiopathy

L2 ANSWER 28 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI Stem cell factor and macrophage-colony stimulating factor in patients with pancreatic cancer

L2 ANSWER 29 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI Macrophages in mouse type 2 diabetic nephropathy: correlation with diabetic state and progressive renal injury

L2 ANSWER 30 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI Treatment with granulocyte colony-stimulating factor prevents diabetes in NOD mice by recruiting plasmacytoid dendritic cells and functional CD4+ CD25+ regulatory T-cells

L2 ANSWER 31 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI Analysis of a protein expression pattern using immobilized ligands and application for capturing substances that are associated with oxidative stress and diabetes mellitus

L2 ANSWER 32 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI Sequences of human glucagon-like 1 peptide (GLP-1) and use for treating diabetes and other blood sugar disorders

L2 ANSWER 33 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI Serum concentrations of vascular endothelial growth factor and monocyte-colony stimulating factor in peripheral arterial disease

L2 ANSWER 34 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI Insulin resistance and adiposity correlate with acute-phase reaction and soluble cell adhesion molecules in type 2 diabetes

L2 ANSWER 35 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI Infusion of Unpulsed Dendritic Cells Derived from Granulocyte/Macrophage Colony-Stimulating Factor-Mobilized Peripheral Blood CD34+ Cells and Monocytes in Patients with Advanced Carcinoma

L2 ANSWER 36 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI Evaluation of granulocyte-colony stimulating factor (Filgrastim) in infected diabetic foot ulcers

L2 ANSWER 37 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI Granulocyte-colony stimulating factor enhances chimeric antibody Nd2 dependent cytotoxicity against pancreatic cancer mediated by polymorphonuclear neutrophils

L2 ANSWER 38 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI Interleukin 18 production promoters containing macrophage colony stimulating factors

L2 ANSWER 39 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI Novel allogeneic granulocyte-macrophage colony-stimulating factor-secreting tumor vaccine for pancreatic cancer: a phase I trial of safety and immune activation

L2 ANSWER 40 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI Neutrophil functions in diabetic patients: responsiveness to proinflammatory cytokines

L2 ANSWER 41 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI Enhanced neutrophil functions by recombinant human granulocyte colony-stimulating factor in diabetic patients with foot infections in vitro

L2 ANSWER 42 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI The expression of adipogenic genes is decreased in obesity and diabetes mellitus

L2 ANSWER 43 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI Prophylactic, but not therapeutic application of granulocyte colony-stimulating factor (G-CSF) reduces tissue damage in sodium taurocholate pancreatitis in rats

L2 ANSWER 44 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI Phase II trial of gemcitabine, epirubicin and granulocyte colony-stimulating factor in patients with advanced pancreatic adenocarcinoma

L2 ANSWER 45 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI Treatment of pancreatic cancer with docetaxel and granulocyte colony-stimulating factor: a multicenter phase II study

L2 ANSWER 46 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI Dendritic cell immunotherapy induces antitumor response in parathyroid carcinoma and neuroendocrine pancreas carcinoma

L2 ANSWER 47 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI Effects of rhG-CSF on neutrophil functions and bone marrow parameters in diabetic rats

L2 ANSWER 48 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI G-CSF accelerates tissue regeneration in wound healing under diabetic conditions

L2 ANSWER 49 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI Granulocyte-macrophage colony stimulating factor in macroangiopathy of NIDDM

L2 ANSWER 50 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI Effects of rhG-CSF on neutrophil functions and survival in sepsis induced diabetic rats

L2 ANSWER 51 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI Phase II trial of paclitaxel and granulocyte colony-stimulating factor in patients with pancreatic carcinoma: a Southwest Oncology Group study

L2 ANSWER 52 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI Molecular mechanism of foam cell change in vascular smooth muscle cells

L2 ANSWER 53 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI Hyperglycemia augments macrophage growth responses in colony-stimulating factor-1

L2 ANSWER 54 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI Activation of peripheral blood monocyte by colony-stimulating factors secreted from human pancreatic carcinoma cells

L2 ANSWER 55 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI Synthesis and secretion of macrophage colony stimulating factor by mature human monocytes and human monocytic THP-1 cells induced by human serum albumin derivatives modified with methylglyoxal and glucose-derived advanced glycation endproducts

L2 ANSWER 56 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI Phase I/II trial of dexverapamil, epirubicin and granulocyte/macrophage-colony-stimulating factor in patients with advanced pancreatic adenocarcinoma

L2 ANSWER 57 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI Hematopoietic stem-cell defects underlying abnormal macrophage development and maturation in NOD/Lt mice: Defective regulation of cytokine receptors and protein kinase C

L2 ANSWER 58 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI High efficiency gene transfer into primary human tumor explants without cell selection

L2 ANSWER 59 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI High stimulatory activity of dendritic cells from diabetes-prone biobreeding/Worcester rats exposed to macrophage-derived factors

L2 ANSWER 60 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI Granulocyte-colony stimulating factor improves an impaired bactericidal

function in neutrophils from STZ-induced diabetic rats

L2 ANSWER 61 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI Effect of granulocyte-colony stimulating factor (G-CSF) on the generation of oxygen-derived free radicals in neutrophils from streptozotocin-induced diabetic rats

L2 ANSWER 62 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI Impairment of superoxide production from neutrophils of patients with gastrointestinal cancer

L2 ANSWER 63 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI Production of colony-stimulating factors (CSFs) in human pancreatic cancer cell lines

L2 ANSWER 64 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI Proliferation of gastrointestinal carcinoma cells by T lymphocyte factors interleukin-3 and granulocyte-macrophage colony-stimulating factor

L2 ANSWER 65 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI Carcinoma treatment with monoclonal antibodies

L2 ANSWER 66 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI Inhibition of development of insulin-dependent (Type I) diabetes mellitus in nonobese diabetic mice by TNF and TNF inducers

L2 ANSWER 67 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI Activation of macrophage tumoricidal activity by granulocyte-macrophage colony stimulating factor

L2 ANSWER 68 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI Purification and characterization of human colony-stimulating factor 1 from human pancreatic carcinoma (MIA PaCa-2) cells

L2 ANSWER 69 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI Enhancement of colony-stimulating factor manufacture with human tumor cell lines using protease inhibitors

L2 ANSWER 70 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI Purification of human macrophage colony stimulating factor (CSF-1) from medium conditioned by pancreatic carcinoma cells

L2 ANSWER 71 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI Common pattern of two distinct types of colony-stimulating factor in human tissues and cultured cells

L2 ANSWER 72 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
TI Purification of a colony-stimulating factor from cultured pancreatic carcinoma cells

L2 ANSWER 73 OF 74 EMBASE COPYRIGHT (c) 2008 Elsevier B.V. All rights reserved on STN
TI [Granulocyte-colony stimulating factor
hastened healing of severe foot infections in patients with diabetes mellitus].
El factor estimulante de colonias de granulocitos acelera la curacion de la infeccion del pie diabetico.

L2 ANSWER 74 OF 74 EMBASE COPYRIGHT (c) 2008 Elsevier B.V. All rights reserved on STN
TI Recombinant human tumor necrosis factor α suppresses autoimmune diabetes in nonobese diabetic mice.

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AT 17:00:25 ON 09 APR 2008
FILE 'MEDLINE' ENTERED AT 17:00:25 ON 09 APR 2008
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     FILE 'MEDLINE, BIOSIS, CAPLUS, EMBASE' ENTERED AT 16:40:48 ON 09 APR 2008
L1           114 S (COLONY STIMULATING FACTOR) (S)(DIABETES OR PANCREAS OR BETA
L2            74 DUP REM L1 (40 DUPLICATES REMOVED)

=> D Ibib Abs L2 4,5,10,13,14,17,22,24,25,26,27,28,30,33,34,36,38,39,43,47,60,61,66

L2   ANSWER 4 OF 74     MEDLINE on STN                  DUPLICATE 5
ACCESSION NUMBER:   2001700162     MEDLINE
DOCUMENT NUMBER:    PubMed ID: 11748649
TITLE:              Granulocyte macrophage-colony stimulating
                    factor (GM-CSF) recruits immune cells to the
                    pancreas and delays STZ-induced diabetes.
AUTHOR:             Krakowski Michelle; Abdelmalik Robin; Mocnik Lorraine;
                    Krahl Troy; Sarvetnick Nora
CORPORATE SOURCE:   Department of Immunology, The Scripps Research Institute,
                    10550 North Torrey Pines Road, La Jolla, CA 92037, USA.
CONTRACT NUMBER:    DK54063 (United States NIDDK)
SOURCE:             The Journal of pathology, (2002 Jan) Vol. 196,
                    No. 1, pp. 103-12.
                    Journal code: 0204634. ISSN: 0022-3417.
PUB. COUNTRY:       England: United Kingdom
DOCUMENT TYPE:      Journal; Article; (JOURNAL ARTICLE)
                    (RESEARCH SUPPORT, NON-U.S. GOV'T)
                    (RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE:           English
FILE SEGMENT:       Priority Journals
ENTRY MONTH:        200202
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ENTRY DATE: Entered STN: 19 Dec 2001
Last Updated on STN: 5 Feb 2002
Entered Medline: 4 Feb 2002

AB Granulocyte macrophage-colony stimulating factor (GM-CSF) is one of the most widely used growth factors for enhancing immune responses and is known to recruit and activate antigen-presenting cells (APCs). This study hypothesized that overexpression of this cytokine within the pancreatic beta-cells would recruit, expand, and activate APCs. The question was whether this would lead to tolerance or autoimmunity to pancreatic antigens. This possibility was tested by preparing transgenic mice (ins-GM-CSF) whose islets expressed murine GM-CSF. By 6-8 weeks of age, these mice developed a profound mononuclear cell infiltration that often overwhelmed the exocrine pancreas, although no changes in enzyme or hormone function were apparent. The majority of the mononuclear infiltrate within the pancreas was identified as F4/80+ macrophages. Transgenic ins-GM-CSF mice had splenomegaly due to a massive increase in the macrophage population. Additionally, mononuclear cells were found within the livers of transgenic mice, with F4/80+ cells also identified within the infiltrate, indicating that GM-CSF-activated mononuclear cells circulated to organs other than the pancreas. To assess the disease potential, this study tested whether macrophage recruitment to the pancreas might accelerate or protect the islets from diabetes. It was found that the induction of diabetes by low-dose streptozotocin (STZ) was delayed and reduced within ins-GM-CSF transgenic mice, in comparison with negative littermates. Together, these data highlight the role of GM-CSF in recruiting APCs such as macrophages. Advanced cellular infiltration does not overtly harm, and may even protect, pancreatic function, as seen with the delay in chemically induced diabetes.

L2 ANSWER 5 OF 74 MEDLINE on STN DUPLICATE 6
ACCESSION NUMBER: 2001220261 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11257020
TITLE: Randomized prospective controlled trial of recombinant granulocyte colony-stimulating factor as adjunctive therapy for limb-threatening diabetic foot infection.
AUTHOR: de Lalla F; Pellizzer G; Strazzabosco M; Martini Z; Du Jardin G; Lora L; Fabris P; Benedetti P; Erle G
CORPORATE SOURCE: Department of Infectious Diseases, San Bortolo Hospital, Vicenza, Italy.. fdl.vi@gpnet.it
SOURCE: Antimicrobial agents and chemotherapy, (2001 Apr) Vol. 45, No. 4, pp. 1094-8.
Journal code: 0315061. ISSN: 0066-4804.
PUB. COUNTRY: United States
DOCUMENT TYPE: (CLINICAL TRIAL)
(COMPARATIVE STUDY)
Journal; Article; (JOURNAL ARTICLE)
(RANDOMIZED CONTROLLED TRIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200109
ENTRY DATE: Entered STN: 17 Sep 2001
Last Updated on STN: 17 Sep 2001
Entered Medline: 13 Sep 2001

AB Adult diabetic patients admitted to our Diabetes Center from September 1996 to January 1998 for severe, limb-threatening foot infection were consecutively enrolled in a prospective, randomized, controlled clinical study aimed at assessing the safety and efficacy of recombinant human granulocyte colony-stimulating factor (G-CSF) (lenograstim) as an adjunctive therapy for the standard treatment of diabetic foot infection. Forty patients, all of whom displayed evidence of osteomyelitis and long-standing ulcer infection, were

randomized 1:1 to receive either conventional treatment (i.e., antimicrobial therapy plus local treatment) or conventional therapy plus 263 microg of G-CSF subcutaneously daily for 21 days. The empiric antibiotic treatment (a combination of ciprofloxacin plus clindamycin) was further adjusted, when necessary, according to the results of cultures and sensitivity testing. Microbiologic assessment of foot ulcers was performed by both deep-tissue biopsy and swab cultures, performed at enrollment and on days 7 and 21 thereafter. Patients were monitored for 6 months; the major endpoints (i.e., cure, improvement, failure, and amputation) were blindly assessed at weeks 3 and 9. At enrollment, both patient groups were comparable in terms of both demographic and clinical data. None of the G-CSF-treated patients experienced either local or systemic adverse effects. At the 3- and 9-week assessments, no significant differences between the two groups could be observed concerning the number of patients either cured or improved, the number of patients displaying therapeutic failure, or the species and number of microorganisms previously yielded from cultures at day 7 and day 21. Conversely, among this small series of patients the cumulative number of amputations observed after 9 weeks of treatment appeared to be lower in the G-CSF arm; in fact, only three patients (15%) in this group had required amputation, whereas nine patients (45%) in the other group had required amputation (P = 0.038). In conclusion, the administration of G-CSF for 3 weeks as an adjunctive therapy for limb-threatening diabetic foot infection was associated with a lower rate of amputation within 9 weeks after the commencement of standard treatment. Further clinical studies aimed at precisely defining the role of this approach to this serious complication of diabetes mellitus appear to be justified.

L2 ANSWER 10 OF 74 MEDLINE on STN DUPLICATE 11
ACCESSION NUMBER: 96309162 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8723556
TITLE: Granulocyte-colony stimulating factor produced by pancreatic carcinoma.
AUTHOR: Uematsu T; Tsuchie K; Ukai K; Kimoto E; Funakawa T; Mizuno R
CORPORATE SOURCE: Department of Surgery, Meijo Hospital, Nagoya, Japan.
SOURCE: International journal of pancreatology : official journal of the International Association of Pancreatology, (1996 Apr) Vol. 19, No. 2, pp. 135-9.
Journal code: 8703511. ISSN: 0169-4197.
PUB. COUNTRY: United States
DOCUMENT TYPE: (CASE REPORTS)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199610
ENTRY DATE: Entered STN: 22 Oct 1996
Last Updated on STN: 22 Oct 1996
Entered Medline: 9 Oct 1996
AB CONCLUSION: A rare case of granulocyte-colony stimulating factor (G-CSF) produced by carcinoma of the pancreas has been reported. BACKGROUND: This is the first case showing high G-CSF concentration in the aspirated tumor fluid (mucin) at its early stage without leukocytosis. METHODS: The tumor, detected incidentally in a 64-yr-old male, was removed by a distal pancreatectomy. The mass was 7.0 x 6.5 x 4.5 cm, and was histologically diagnosed as cystadenocarcinoma with prominent sarcomatous transformation. It was classified as anaplastic carcinoma. RESULTS: After 4 wk of resection, progressive leukocytosis was observed. Seven weeks after the operations, the peripheral leukocyte count increased to 126,000/mL. After 8 wk of resection, the patient died of recurrence. The serum G-CSF concentration was elevated after recurrence. The preserved mucin contained in the

cystic components of the resected specimen had a G-CSF concentration higher than 2400 pg/mL. G-CSF is a known cytokine and an etiologic agent in paraneoplastic syndromes. An early diagnosis can, therefore, be made prior to the manifestation of clinical symptoms by the evaluation of the aspirated tumor fluid. This can lead to the prevention of the paraneoplastic syndrome with inhibitory cytokines in future.

L2 ANSWER 13 OF 74 MEDLINE on STN DUPLICATE 14
ACCESSION NUMBER: 93345962 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8344650
TITLE: Effect of macrophage colony-stimulating factor on the development of diabetes mellitus in BB rats.
AUTHOR: Watanabe Y; Inoue I; Inaba T; Shimano H; Gotoda T; Harada K; Shimada M; Kawazu S; Komeda K; Yazaki Y; +
CORPORATE SOURCE: Third Department of Internal Medicine, University of Tokyo, Japan.
SOURCE: Hormone and metabolic research. Hormon- und Stoffwechselforschung. Hormones et metabolisme, (1993 Jun) Vol. 25, No. 6, pp. 323-4.
Journal code: 0177722. ISSN: 0018-5043.
PUB. COUNTRY: GERMANY: Germany, Federal Republic of
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199309
ENTRY DATE: Entered STN: 24 Sep 1993
Last Updated on STN: 29 Jan 1996
Entered Medline: 3 Sep 1993

L2 ANSWER 14 OF 74 MEDLINE on STN DUPLICATE 15
ACCESSION NUMBER: 91192528 MEDLINE
DOCUMENT NUMBER: PubMed ID: 2013378
TITLE: Stimulation of pancreas and gastric carcinoma cell growth by interleukin 3 and granulocyte-macrophage colony-stimulating factor.
AUTHOR: Dippold W G; Klingel R; Kerlin M; Schwaeble W; Meyer zum Buschenfelde K H
CORPORATE SOURCE: Department of Internal Medicine I, Johannes Gutenberg-Universitat Mainz, Germany.
SOURCE: Gastroenterology, (1991 May) Vol. 100, No. 5 Pt 1, pp. 1338-44.
Journal code: 0374630. ISSN: 0016-5085.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 199105
ENTRY DATE: Entered STN: 2 Jun 1991
Last Updated on STN: 3 Mar 2000
Entered Medline: 13 May 1991
AB Hematopoietic growth factors have recently been well characterized by complementary DNA cloning. For human epidermal growth factor, granulocyte-macrophage colony-stimulating factor recombinant proteins have been expressed in Escherichia coli. To reduce the toxic side effects of chemotherapy on the bone marrow, recombinant human granulocyte-macrophage colony-stimulating factor and recombinant human interleukin 3 were applied to patients suffering of gastrointestinal cancers. To determine the influence of recombinant human granulocyte-macrophage colony-stimulating factor and recombinant human interleukin 3 on human pancreas and gastric cancer cell cells in vitro, a

sensitive microculture test system was established that allows precise quantification of proliferation. A more than twofold enhancement of proliferation was observed by interleukin 3 and granulocyte-macrophage colony-stimulating factor in two of two cell cultures derived from gastric carcinoma cells, while two of nine cultures from pancreas carcinoma cells have shown enhanced cell growth in the presence of recombinant human interleukin 3 or recombinant human granulocyte-macrophage colony-stimulating factor. In comparison, recombinant human epidermal growth factor increased cell growth in two of two gastric and in five of nine pancreas carcinoma cultures. In general, 1-10 ng/mL of the growth factors yielded the highest growth rate, but even 1-pg amounts produced increased cell growth. Expression of messenger RNA for granulocyte-macrophage colony-stimulating factor, interleukin 3, and the oncogene HER2/neu remained undetectable in all of the tested cell lines, while the various abundance of messenger RNA for the epidermal growth factor receptor was different in each cell line. The reported results imply that the hematopoietic growth factors interleukin 3 and granulocyte-macrophage colony-stimulating factor influence cellular growth of pancreas and gastric carcinoma cells by a paracrine mechanism and may possess a more general regulatory function than originally anticipated.

L2 ANSWER 17 OF 74 MEDLINE on STN
ACCESSION NUMBER: 2000241106 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10778638
TITLE: Insulin dependent diabetes mellitus induced by chemotherapy and granulocyte, macrophage--colony stimulating factor.
AUTHOR: Geetha N; Lali V S; Hussain B M; Nair M K
CORPORATE SOURCE: Dept. of Medical Oncology, Regional Cancer Centre, Kerala, India.
SOURCE: The Journal of the Association of Physicians of India, (1999 Aug) Vol. 47, No. 8, pp. 835.
Journal code: 7505585. ISSN: 0004-5772.
PUB. COUNTRY: India
DOCUMENT TYPE: (CASE REPORTS)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200005
ENTRY DATE: Entered STN: 25 May 2000
Last Updated on STN: 25 May 2000
Entered Medline: 18 May 2000

L2 ANSWER 22 OF 74 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1991:304200 BIOSIS
DOCUMENT NUMBER: PREV199141012790; BR41:12790
TITLE: CYTOKINES IN ENDOCRINOLOGY THEIR ROLES IN HEALTH AND IN DISEASE.
AUTHOR(S): KENNEDY R L [Reprint author]; JONES T H
CORPORATE SOURCE: DEP MED, CLIN SCI CENTRE, NORTHERN GEN HOSP, HERRIES RD, SHEFFIELD S5 7AU, UK
SOURCE: Journal of Endocrinology, (1991) Vol. 129, No. 2, pp. 167-178.
CODEN: JOENAK. ISSN: 0022-0795.
DOCUMENT TYPE: Article
FILE SEGMENT: BR
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 3 Jul 1991
Last Updated on STN: 3 Jul 1991

L2 ANSWER 24 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:589280 CAPLUS
DOCUMENT NUMBER: 141:134691
TITLE: Sequences of human glucagon-like 1 peptide (GLP-1) and use for treating diabetes and other blood sugar disorders
INVENTOR(S): Wadsworth, Samuel C.; Armentano, Donna; Gregory, Richard J.; Parsons, Geoffrey
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 56 pp., Cont.-in-part of U.S. Ser. No. 215,272.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 20040143104	A1	20040722	US 2003-716326		20031117
US 20040002468	A1	20040101	US 2002-215272		20020807 <--
PRIORITY APPLN. INFO.:			US 2001-310982P	P	20010808
			US 2002-215272	A2	20020807

AB The invention provides sequences of a precursor glucagon-like peptide 1 (GLP-1) comprising human GLP-1 linked to a heterologous signal sequence. The invention also relates to a method of promoting insulin production in an individual comprising administering to the individual an effective amount of a nucleic acid encoding a precursor GLP-1. The present invention also relates to a method of treating an individual having a blood sugar defect (e.g., type I or type II diabetes), comprising administering to the individual an effective amount of a nucleic acid encoding the precursor GLP-1. In a particular embodiment, the invention pertains to a method of treating an individual having a blood sugar defect sugar defect comprising administering to the individual an effective amount of a nucleic acid encoding a precursor GLP-1 wherein the precursor GLP-1 comprises a signal sequence which codes for precursor cleavage at the activation cleavage site of the precursor GLP-1.

L2 ANSWER 25 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:1142850 CAPLUS
DOCUMENT NUMBER: 142:404322
TITLE: Adjunctive granulocyte colony-stimulating factor therapy for diabetic foot infections
AUTHOR(S): Reed, Kelly S.; Pai, Manjunath P.
CORPORATE SOURCE: Providence St. Vincent Medical Center, Portland, OR, USA
SOURCE: Annals of Pharmacotherapy (2004), 38(12), 2150-2153
CODEN: APHRER; ISSN: 1060-0280
PUBLISHER: Harvey Whitney Books Co.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review on the role of granulocyte colony-stimulating factor (G-CSF) as adjunctive therapy for the treatment of diabetic foot infections in non-neutropenic patients. Clin. literature was accessed through MEDLINE (1966-Apr. 2004). Key search terms included G-CSF, infection, and diabetes. In addition, relevant refs. from primary and secondary article bibliogs. were extracted Three clin. trials evaluating G-CSF for diabetic foot infections were identified. These data demonstrated pos. effects of G-CSF on improvement of foot infections and risk of amputations. Controlled trials are necessary to validate the role of adjunctive G-CSF

at reducing amputations in patients with diabetic foot infections.
REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 26 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:323501 CAPLUS
DOCUMENT NUMBER: 140:319937
TITLE: Increased islet antigen presentation leads to type-1 diabetes in mice with autoimmune susceptibility
AUTHOR(S): Judkowski, Valeria; Krakowski, Michelle; Rodriguez, Enrique; Mocnick, Lorraine; Santamaria, Pere; Sarvetnick, Nora
CORPORATE SOURCE: Department of Immunology, The Scripps Research Institute, La Jolla, CA, 92037, USA
SOURCE: European Journal of Immunology (2004), 34(4), 1031-1040
CODEN: EJIMAF; ISSN: 0014-2980
PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Granulocyte-macrophage colony-stimulating factor (GM-CSF) is frequently used in preclin. and clin. protocols to modulate autoimmune responses, bone marrow transplants, and recovery from immune ablative therapies. The immunol. outcome of such therapies is not fully understood. The authors tested the hypothesis that GM-CSF would enhance the maturation of antigen-presenting cells, facilitating presentation of β-cell autoantigens to autoreactive T cells. The authors found that islet expression of GM-CSF greatly enhanced disease in male mice. Islet-derived APC but not splenic APC showed markedly enhanced capacity to stimulate in vitro proliferative responses of islet-antigen-specific autoreactive T cells. In vivo transfer of CD8+ and CD4+ T cells demonstrate that autoreactive T cells undergo extensive division in pancreatic lymph nodes of GM-CSF-transgenic mice compared with wild-type NOD male mice. Together, the results presented here demonstrate that expression of GM-CSF in the pancreas can enhance autoimmunity in disease-susceptible mice.
REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 27 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:423226 CAPLUS
DOCUMENT NUMBER: 141:86978
TITLE: AGEs, macrophage colony stimulating factor and vascular adhesion molecule blood levels are increased in patients with diabetic microangiopathy
AUTHOR(S): Wautier, Marie-Paule; Boulanger, Eric; Guillausseau, Pierre-Jean; Massin, Pascale; Wautier, Jean-Luc
CORPORATE SOURCE: Institut National de la Transfusion Sanguine, Departement de Biologie Cellulaire, Universite Paris, Paris, Fr.
SOURCE: Thrombosis and Haemostasis (2004), 91(5), 879-885
CODEN: THHADQ; ISSN: 0340-6245
PUBLISHER: Schattauer GmbH
DOCUMENT TYPE: Journal
LANGUAGE: English
AB In vitro expts. and animal models indicate that advanced glycation end products (AGEs) may play a crucial role in the vascular dysfunctions observed in patients with diabetes mellitus. These results prompted us to study subrogate markers of inflammation or vascular dysfunction in type II diabetic patients. Monocyte count and activation are dependent upon macrophage colony stimulating factors (M-CSF). Soluble vascular cell adhesion mol. (sVCAM-I) blood levels have been proposed as a marker for

endothelium activation. To explore a possible relationship between these factors in diabetic patients, we measured a chemical defined AGE, N(carboxymethyl)lysine-protein (CML-protein) in a group of normal subjects (n = 55) and of diabetic patients (n = 40) using ELISA. Simultaneously, we determined M-CSF and sVCAM-I blood levels. We found that CML-protein blood levels were significantly higher in patients with diabetes compared to non-diabetic subjects (40.2±4.7 and 7.9±0.7 pmol/mg protein resp., p < 0.0001). M-CSF was increased while sVCAM-I blood levels were normal in the group of diabetics. M-CSF blood level was correlated to CML-protein blood level (p < 0.05). In addition CML-protein, M-CSF and sVCAM-I were increased in patients with microangiopathy. These results suggest that AGE may contribute to vascular dysfunction including microangiopathy.

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 28 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:294652 CAPLUS
DOCUMENT NUMBER: 140:373703
TITLE: Stem cell factor and macrophage-colony stimulating factor in patients with pancreatic cancer
AUTHOR(S): Mroczko, Barbara; Szmitkowski, Maciej; Wereszczynska-Siemiatkowska, Urszula; Jurkowska, Grazyna
CORPORATE SOURCE: Department of Biochemical Diagnostics, Medical Academy, Bialystok, 15-276, Pol.
SOURCE: Clinical Chemistry and Laboratory Medicine (2004), 42(3), 256-260
CODEN: CCLMFW; ISSN: 1434-6621
PUBLISHER: Walter de Gruyter GmbH & Co. KG
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Stem cell factor (SCF) and macrophage-colony stimulating factor (M-CSF) have assumed an increasing importance in cancer biol. In the present study we investigated the serum levels of these cytokines in pancreatic cancer patients in relation to controls and to patients with benign lesions of the pancreas (chronic pancreatitis group). The classical tumor markers, such as carcinoembryonic antigen (CEA) and carbohydrate antigen 19-9 (CA 19-9) were also tested. We compared the serum levels of cytokines with tumor stage. We also defined the receiver-operating characteristics (ROC) curve for cytokines and classical tumor markers. The cytokines were measured in 47 patients with pancreatic cancer, in 27 patients with chronic pancreatitis and in 35 healthy subjects. SCF and M-CSF were determined using ELISA. CEA and CA 19-9 were measured by microparticle enzyme immunoassay. There were significant differences in the levels of circulating SCF, M-CSF, CEA and CA 19-9 in the pancreatic cancer patients compared to the control group, but only the serum levels of M-CSF, CEA and CA 19-9 were significantly higher in pancreatic cancer patients compared to the pancreatitis group. The levels of cytokines and tumor markers were higher in patients with a more advanced tumor stage. The M-CSF serum levels correlated pos. with the tested tumor markers. The M-CSF area under the ROC curve was higher than the SCF area. These results suggest that M-CSF is a better candidate for a pancreatic cancer tumor marker than SCF.

REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 30 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:101088 CAPLUS
DOCUMENT NUMBER: 142:255097
TITLE: Treatment with granulocyte colony-stimulating factor prevents diabetes in NOD mice by recruiting

plasmacytoid dendritic cells and functional CD4+ CD25+ regulatory T-cells

AUTHOR(S): Kared, Hassen; Masson, Annie; Adle-Biassette, Homa; Bach, Jean-Francois; Chatenoud, Lucienne; Zavala, Flora

CORPORATE SOURCE: National Institute of Health and Medical Research, INSERM U580, Necker Enfants Malades Research Institute, Hopital Necker, Paris, Fr.

SOURCE: Diabetes (2004), Volume Date 2005, 54(1), 78-84
CODEN: DIAEAZ; ISSN: 0012-1797

PUBLISHER: American Diabetes Association

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Accumulating evidence that granulocyte colony-stimulating factor (G-CSF), the key hematopoietic growth factor of the myeloid lineage, not only represents a major component of the endogenous response to infections, but also affects adaptive immune responses, prompted us to investigate the therapeutic potential of G-CSF in autoimmune type 1 diabetes. Treatment with G-CSF protected NOD mice from developing spontaneous diabetes. G-CSF triggered marked recruitment of dendritic cells (DCs), particularly immature CD11cloB220+ plasmacytoid DCs, with reduced costimulatory signal expression and higher interferon-α but lower interleukin-12 p70 release capacity than DCs in excipient-treated mice. G-CSF recipients further displayed accumulation of functional CD4+CD25+ regulatory T-cells that produce transforming growth factor-β1 (TGF-β1) and actively suppressed diabetes transfer by diabetogenic effector cells in secondary NOD-SCID recipients. G-CSF's ability to promote key tolerogenic interactions between DCs and regulatory T-cells was demonstrated by enhanced recruitment of TGF-β1-expressing CD4+CD25+ cells after adoptive transfer of DCs isolated from G-CSF- relative to vehicle-treated mice into naive NOD recipients. The present results suggest that G-CSF, a promoter of tolerogenic DCs, may be evaluated for the treatment of human type 1 diabetes, possibly in association with direct inhibitors of T-cell activation. They also provide a rationale for a protective role of the endogenous G-CSF produced during infections in early diabetes.

REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 33 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:677837 CAPLUS

DOCUMENT NUMBER: 139:290261

TITLE: Serum concentrations of vascular endothelial growth factor and monocyte-colony stimulating factor in peripheral arterial disease

AUTHOR(S): Matsui, Keiji; Yoshioka, Toru; Murakami, Yoshiaki; Takahashi, Masafumi; Shimada, Kazuyuki; Ikeda, Uichi

CORPORATE SOURCE: Division of Cardiovascular Medicine, Jichi Medical School, Tochigi, Japan

SOURCE: Circulation Journal (2003), 67(8), 660-662
CODEN: CJIOBY; ISSN: 1346-9843

PUBLISHER: Japanese Circulation Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Vascular endothelial growth factor (VEGF) strongly promotes angiogenesis, and monocyte-colony stimulating factor (M-CSF) regulates the differentiation, proliferation, and survival of monocytes. Both VEGF and M-CSF are expressed in atherosclerotic lesions. The present study was performed to clarify the role of VEGF and M-CSF in the development of peripheral artery disease (PAD). The serum VEGF and M-CSF concns. were determined in patients with arteriosclerosis obliterans (ASO) and

thromboangitis obliterans (TAO). In both patient groups the serum VEGF concns. were significantly higher than those in the control subjects. In contrast, the serum M-CSF concns. in the ASO patients were significantly higher than those in both the TAO patients and control subjects, but there were no differences in the M-CSF concns. between the TAO patients and control subjects. There was no correlation between the serum concns. of VEGF and M-CSF. In conclusion, the serum VEGF concentration was increased in ASO and TAO patients, but increased concentration of M-CSF was seen only in ASO patients. These results may reflect a difference between ASO and TAO in disease pathogenesis.

REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 34 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2003:32126 CAPLUS
DOCUMENT NUMBER: 138:301874
TITLE: Insulin resistance and adiposity correlate with acute-phase reaction and soluble cell adhesion molecules in type 2 diabetes
AUTHOR(S): Leinonen, Eeva; Hurt-Camejo, Eva; Wiklund, Olov; Hulten, Lillemor Mattson; Hiukka, Anne; Taskinen, Marja-Riitta
CORPORATE SOURCE: Department of Internal Medicine, Helsinki University Central Hospital, Helsinki, 00029 HUS, Finland
SOURCE: Atherosclerosis (Shannon, Ireland) (2003), 166(2), 387-394
CODEN: ATHSBL; ISSN: 0021-9150
PUBLISHER: Elsevier Science Ireland Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Objective: To investigate the relationship of inflammation and endothelial activation with insulin resistance and adiposity in type 2 diabetes. Methods and results: Hundred and thirty-four (45 female) type 2 diabetic subjects aged 50-75 in the Fenofibrate Intervention and Event Lowering in Diabetes Study in Helsinki were examined before fenofibrate intervention. Fasting levels of circulating intercellular cell adhesion mol.-1 (ICAM-1), vascular cell adhesion mol.-1 (VCAM-1) (vascular cell adhesion mol.), ultra-sensitive C-reactive protein (CRP), human serum amyloid A (hSAA), interleukin-6 (IL-6), macrophage colony-stimulating factor (M-CSF), secretory phospholipase A2 IIA (PLA2), total, HDL and LDL cholesterol, triglycerides, P-glucose, HbA1c, and serum free insulin were determined Insulin resistance was assessed by the homeostasis model. HOMA IR correlated significantly with all measures of adiposity and markers of inflammation and endothelial dysfunction. BMI was significantly associated with inflammation and endothelial activation, but with neither lipoproteins nor glycemic control. After controlling for age, gender and BMI, HbA1c correlated significantly with CRP, hSAA, ICAM-1, E-selectin, and HOMA IR. HDL cholesterol correlated inversely with IL-6, M-CSF, E-selectin, and HOMA IR. HbA1c, phospholipase A2, VCAM-1, and HDL cholesterol remained independent determinants of HOMA IR in the linear regression anal. controlled for age, gender, and BMI. Conclusion: Endothelial activation and acute-phase reaction correlate with insulin resistance and obesity in type 2 diabetic patients.
REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 36 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2003:106752 CAPLUS
DOCUMENT NUMBER: 139:286105
TITLE: Evaluation of granulocyte-colony stimulating factor (Filgrastim) in infected diabetic foot ulcers

AUTHOR(S): Kaestenbauer, T.; Hoernlein, B.; Sokol, G.; Irsigler, K.
CORPORATE SOURCE: L. Boltzmann Institute of Metabolic Diseases and Nutrition, Hospital Lainz, Vienna, 1130, Austria
SOURCE: Diabetologia (2003), 46(1), 27-30
CODEN: DBTGAJ; ISSN: 0012-186X
PUBLISHER: Springer-Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
AB To re-evaluate the use of Granulocyte-Colony Stimulating Factor (G-CSF) in the treatment of infected diabetic foot ulcers. Thirty-seven diabetic subjects were randomised to Granulocyte-Colony Stimulating Factor (G-CSF) (n = 20) or placebo (n = 17). The primary endpoint was resolution of cellulitis, which was evaluated clin. and with an infection summary score. Patients were hospitalised for 10 days and received s.c. either 5 μg/kg G-CSF or placebo daily. Ulcers were treated with a standard wound protocol and the patients were instructed to stay in bed. All subjects received antibiotics (clindamycin and ciprofloxacin) i.v. until the inflammation had subsided. Patients who received G-CSF did not have an earlier resolution of clin. defined cellulitis (p = 0.57). The infection summary score declined, but comparably, in both groups (G-CSF: 29.5 ± 18.4 to 6.7 ± 6.3 p <0.001, placebo: 24.2 ± 16.9 to 8.9 ± 7.2 p <0.001). The ulcer volume, which was not greater among placebo patients, was reduced by 59% in G-CSF and by 35% in placebo patients. We conclude that antibiotic and non weight-bearing therapy (bed rest) accelerated the resolution of cellulitis in infected foot ulcers. Addnl. treatment with G-CSF had no further beneficial effect.
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 38 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2001:624141 CAPLUS
DOCUMENT NUMBER: 135:194484
TITLE: Interleukin 18 production promoters containing macrophage colony stimulating factors
INVENTOR(S): Okamura, Haruki; Kashimura, Shinichiro; Hayasawa, Hironori; Kuhara, Tetsuya; Ito, Taketo
PATENT ASSIGNEE(S): Morinaga Milk Industry Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001233784	A	20010828	JP 2000-46263	20000223 <--

PRIORITY APPLN. INFO.: JP 2000-46263 20000223
AB The promoters, which suppress onset and progression of diabetes and inhibit bone metastasis of tumors, contain ≥1 selected from macrophage colony-stimulating factors and their salts. I.v. administration of human M-SCF to mice significantly increased IL-18 in the spleen. Pharmaceutical formulations containing human M-SCF were also given.

L2 ANSWER 39 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2001:82137 CAPLUS
DOCUMENT NUMBER: 135:136105
TITLE: Novel allogeneic granulocyte-macrophage colony-stimulating factor-secreting tumor vaccine for pancreatic cancer: a phase I trial of safety and

immune activation
AUTHOR(S): Jaffee, Elizabeth M.; Hruban, Ralph H.; Biedrzycki, Barbara; Laheru, Daniel; Schepers, Karen; Sauter, Patricia R.; Goemann, Marti; Coleman, Joanne; Grochow, Louise; Donehower, Ross C.; Lillemoe, Keith D.; O'Reilly, Seamus; Abrams, Ross A.; Pardoll, Drew M.; Cameron, John L.; Yeo, Charles J.
CORPORATE SOURCE: Departments of Oncology, Surgery, The Johns Hopkins Medical Institutions, Baltimore, MD, USA
SOURCE: Journal of Clinical Oncology (2001), 19(1), 145-156
CODEN: JCONDN; ISSN: 0732-183X
PUBLISHER: Lippincott Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Purpose: Allogeneic granulocyte-macrophage colony-stimulating factor (GM-CSF)-secreting tumor vaccines can cure established tumors in the mouse, but their efficacy against human tumors is uncertain. We have developed a novel GM-CSF-secreting pancreatic tumor vaccine. To determine its safety and ability to induce antitumor immune responses, we conducted a phase I trial in patients with surgically resected adenocarcinoma of the pancreas. Patients and Methods: Fourteen patients with stage 1, 2, or 3 pancreatic adenocarcinoma were enrolled. Eight weeks after pancreaticoduodenectomy, three patients received 1 + 107 vaccine cells, three patients received 5 + 107 vaccine cells, three patients received 10 + 107 vaccine cells, and five patients received 50 + 107 vaccine cells. Twelve of 14 patients then went on to receive a 6-mo course of adjuvant radiation and chemotherapy. One month after completing adjuvant treatment, six patients still in remission received up to three addnl. monthly vaccinations with the same vaccine dose that they had received originally. Results: No dose-limiting toxicities were encountered. Vaccination induced increased delayed-type hypersensitivity (DTH) responses to autologous tumor cells in three patients who had received ≥ 10 + 107 vaccine cells. These three patients also seemed to have had an increased disease-free survival time, remaining disease-free at least 25 mo after diagnosis. Conclusion: Allogeneic GM-CSF-secreting tumor vaccines are safe in patients with pancreatic adenocarcinoma. This vaccine approach seems to induce dose-dependent systemic antitumor immunity as measured by increased postvaccination DTH responses against autologous tumors. Further clin. evaluation of this approach in patients with pancreatic cancer is warranted.
REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 43 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2000:656281 CAPLUS
DOCUMENT NUMBER: 133:276776
TITLE: Prophylactic, but not therapeutic application of granulocyte colony-stimulating factor (G-CSF) reduces tissue damage in sodium taurocholate pancreatitis in rats
AUTHOR(S): Schneider, C. G.; Hafemann, M.; Lankenau, G.; Mann, O.; Bloechle, C.; Izbicki, J. R.
CORPORATE SOURCE: Abteilung fur Allgemeinchirurgie, Universitats-Krankenhaus Eppendorf, Hamburg, 20246, Germany
SOURCE: Chirurgisches Forum fuer Experimentelle und Klinische Forschung (2000) 573-576
CODEN: CFEKA7; ISSN: 0303-6227
PUBLISHER: Springer-Verlag
DOCUMENT TYPE: Journal
LANGUAGE: German
AB Prophylactically administered anti-inflammatory cytokine granulocyte

colony-stimulating factor (G-CSF) reduced tissue damage in acute Na taurocholate (ST) pancreatitis. The proposed mechanism, i.e., a suppression of tumor necrosis factor α (TNF), was not observed Aim of this study was to correlate the prophylactic and therapeutic effects of G-CSF on survival, tissue damage, and microcirculation. 40 Rats were given G-CSF (50 μg/kg,s.c.) or Ringers solution as control, 12 h before or 15 min after induction of Na taurocholate (ST) pancreatitis. Observation lasted 12 h. In 12 addnl. animals, in vivo pancreatic microcirculation was observed with an epiluminescent microscope and recorded on video tape. Acridine orange was used to label leukocytes. G-CSF was given 12 h before pancreatitis induction. Neither prophylactic nor therapeutic administration of G-CSF influenced survival. Overall tissue damage was reduced in the prophylactic (score by Schmidt 1992: 4.5 G-CSF vs 10.5 controls, median) but not in the therapeutical setting. TNF blood serum levels were not different in the treatment and control group. No differences were observed in the development of total capillary stasis and the extent of leukocyte adherence. Therapeutic administration of G-CSF failed in ST pancreatitis, to reproduce its beneficial effect as observed when used prophylactically. Therefore, the effect seems to be mediated by currently recruited neutrophils or other structures and compartments, e.g., the endothelium. The pos. effect in the prophylactic setting is not mediated by improvement of microcirculation, since microcirculatory changes were not observed

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 47 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:28442 CAPLUS

DOCUMENT NUMBER: 132:192728

TITLE: Effects of rhG-CSF on neutrophil functions and bone marrow parameters in diabetic rats

AUTHOR(S): Canturk, Zeynep; Canturk, Nuh Zafer; Cetinarslan, Berrin; Ercin, Cengiz; Dokmetas, Sebila; Sencan, Mehmet

CORPORATE SOURCE: School of Medicine, Kocaeli University, Kocaeli, Turk.

SOURCE: Endocrine Research (1999), 25(3 & 4), 381-395
CODEN: ENRSE8; ISSN: 0743-5800

PUBLISHER: Marcel Dekker, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Neutrophils have an important role in the host defense. The elevated serum glucose levels of diabetics affect traditional host defenses such as neutrophil counts and functions. The causes of these impairments are not clear. The authors aimed to investigate changes of peripheral neutrophil counts and functions and their relation with bone marrow cells in diabetic rats. 32 Rats were divided into 4 equal groups. Group 1 were controls and groups 2 and 4 were made diabetic by a single i.p. injection of streptozotocin. Granulocyte colony stimulating factor (G-CSF) was injected s.c. into groups 3 and 4. White blood cell count, neutrophil counts and function and bone marrow cell count were determined Peripheral blood cell counts, neutrophil phagocytosis index were decreased but neutrophil adhesivity index was not different in the diabetes-induced group. There was a difference in circulating white blood cell counts and neutrophil counts between the rhG-CSF treated and non-treated groups. The phagocytosis index of neutrophil in diabetic rats was significantly diminished by rhG-CSF treatment. A hyperplasia of early cells of the myeloid series in G-CSF treated groups was observed when compared with those of nontreated groups ($p<0.001$). A significant decrease was noted in the number of mature marrow segmented cells diabetic groups ($p<0.001$). Finally, G-CSF was shown to cause neutrophilia by acting as a releasing factor for mature marrow neutrophils in diabetic rats. These results suggest that

G-CSF may be used to improve nonspecific immunity in diabetic patients.
REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 60 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1993:189728 CAPLUS
DOCUMENT NUMBER: 118:189728
TITLE: Granulocyte-colony stimulating factor improves an impaired bactericidal function in neutrophils from STZ-induced diabetic rats
AUTHOR(S): Sato, Noriyuki; Shimizu, Hiroyuki
CORPORATE SOURCE: Sch. Med., Gunma Univ., Maebashi, Japan
SOURCE: Diabetes (1993), 42(3), 470-3
CODEN: DIAEAZ; ISSN: 0012-1797
DOCUMENT TYPE: Journal
LANGUAGE: English
AB To evaluate whether G-CSF improves an impaired production of oxygen-derived free radicals in diabetic neutrophils, the authors studied the effect of G-CSF on chemiluminescence amplified by a luciferin analog (CLA-DCL) and luminol (L-DCL) in response to fMLP in neutrophils from STZ-induced diabetic rats. Both CLA-DCL and L-DCL in diabetic neutrophils were reduced, and L-DCL was more sensitive to this inhibition than CLA-DCL. G-CSF did not change the basal chemiluminescence in either control or diabetic neutrophils, but it apparently primed CLA-DCL and L-DCL. Although, in diabetic neutrophils, the priming effect of G-CSF to both CLA-DCL and L-DCL was less compared with that in control neutrophils, L-DCL was more sensitive than CLA-DCL to this priming effect. Because bacterial infection is still an important cause of morbidity and mortality in diabetic patients, these data suggest that G-CSF may be useful as a drug to prevent the aggravation of bacterial infection in diabetic patients.

L2 ANSWER 61 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1993:470092 CAPLUS
DOCUMENT NUMBER: 119:70092
TITLE: Effect of granulocyte-colony stimulating factor (G-CSF) on the generation of oxygen-derived free radicals in neutrophils from streptozotocin-induced diabetic rats
AUTHOR(S): Sato, Noriyuki; Kashima, Kouji; Shimizu, Hiroyuki; Shimomura, Yohnosuke; Uehara, Yutaka; Tanaka, Yoshito; Suwa, Kunihiko; Kobayashi, Isao; Mori, Masatomo
CORPORATE SOURCE: Sch. Med., Gunma Univ., Maebashi, 371, Japan
SOURCE: Tonyobyo (Tokyo, Japan) (1993), 36(2), 117-23
CODEN: TONYA4; ISSN: 0021-437X
DOCUMENT TYPE: Journal
LANGUAGE: Japanese
AB To evaluate whether granulocyte-colony stimulating factor (G-CSF) improves impaired production of oxygen-derived free radicals by diabetic neutrophils, the effect of G-CSF on chemiluminescence amplified by a luciferin analog (CLA-DCL) and luminol (L-DCL) in response to fMLP in neutrophils from streptozotocin (STZ)-induced diabetic (DM) rats was studied. Both CLA-DCL and L-DCL were significantly reduced in DM neutrophils and L-DCL was more sensitive to this inhibition than CLA-DCL. In both control and DM neutrophils, G-CSF did not change the basal chemiluminescence, however, it apparently primed CLA-DCL and L-DCL. Although in diabetic neutrophils the priming effect of G-CSF on both CLA-DCL and L-DCL was less compared with that in control neutrophils, L-DCL was more sensitive to this priming effect than CLA-DCL. Because bacterial infection still accounts for the susceptibility to infection and is an important cause of morbidity and mortality in diabetic patients, these data suggest that G-CSF may be a

useful drug to prevent aggravation of bacterial infection in diabetic patients.

L2 ANSWER 66 OF 74 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1989:642 CAPLUS
DOCUMENT NUMBER: 110:642
ORIGINAL REFERENCE NO.: 110:111a,114a
TITLE: Inhibition of development of insulin-dependent (Type I) diabetes mellitus in nonobese diabetic mice by TNF and TNF inducers
AUTHOR(S): Satoh, Jo; Shintani, Shigeki; Tanaka, Shunichi; Tamura, Keiji; Seino, Hiroaki; Ohta, Setsu; Nobunaga, Toshima; Kumagai, Katsuo; Toyota, Takayoshi
CORPORATE SOURCE: Sch. Med., Tohoku Univ., Sendai, 980, Japan
SOURCE: Igaku no Ayumi (1988), 147(1), 63-4
CODEN: IGAYAY; ISSN: 0039-2359
DOCUMENT TYPE: Journal
LANGUAGE: Japanese
AB The preventive effects of various biol. response modifiers on insulin-dependent diabetes mellitus(IDDM) were studied in non-obese diabetic (NOD) mice. NOD mice were treated with β-glucan (lentinan), Nocardia rubra cell wall skeleton, glycyrrhizin, lipopolysaccharide, insulin, or various recombinant cytokines [human interleukin (IL)-1α, human IL-2, mouse interferon-γ, mouse granulocyte-macrophage colony-stimulating factor, or human tumor necrosis factor (TNF)] once or twice a weak from 4 to 25-30 wk of age, and the cumulative incidence of diabetes in treated mice was compared with that in untreated mice. LPS, lentinan, TFN, and OK432 inhibited the development of IDDM in NOD mice.

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PASSWORD:
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                  custom IPC display formats
 NEWS  5  JAN 28  MARPAT searching enhanced
 NEWS  6  JAN 28  USGENE now provides USPTO sequence data within 3 days
                  of publication
 NEWS  7  JAN 28  TOXCENTER enhanced with reloaded MEDLINE segment
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 NEWS 12  FEB 25  IMSPRODUCT reloaded with enhancements
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                  U.S. National Patent Classification
 NEWS 14  MAR 31  IFICDB, IFIPAT, and IFIUDB enhanced with new custom
                  IPC display formats
 NEWS 15  MAR 31  CAS REGISTRY enhanced with additional experimental
                  spectra
 NEWS 16  MAR 31  CA/CAplus and CASREACT patent number format for U.S.
                  applications updated
 NEWS 17  MAR 31  LPCI now available as a replacement to LDPCI
 NEWS 18  MAR 31  EMBASE, EMBAL, and LEMBASE reloaded with enhancements
 NEWS 19  APR 04  STN AnaVist, Version 1, to be discontinued

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=> S G-CSF(S)(Stem cell) (S) Different AND pd<=20040415
AND IS NOT A RECOGNIZED COMMAND
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=> S  G-CSF(S)(Stem cell)(S) Different AND pd<=20040415
   2 FILES SEARCHED...
L1          71 G-CSF(S)(STEM CELL)(S) DIFFERENT AND PD<=20040415

=> S  G-CSF(S)(Stem cell) (S) Different? AND pd<=20040415
   2 FILES SEARCHED...
L2         205 G-CSF(S)(STEM CELL) (S) DIFFERENT? AND PD<=20040415

=> Dup Rem L2
PROCESSING COMPLETED FOR L2
L3          104 DUP REM L2 (101 DUPLICATES REMOVED)
                ANSWERS '1-50' FROM FILE MEDLINE
                ANSWERS '51-67' FROM FILE BIOSIS
                ANSWERS '68-101' FROM FILE CAPLUS
                ANSWERS '102-104' FROM FILE EMBASE

=> D Ti L3 1-104

L3   ANSWER 1 OF 104     MEDLINE on STN                 DUPLICATE 1
TI   Granulocyte colony-stimulating factor modulates alpha-galactosylceramide-
     responsive human Valpha24+Vbeta11+NKT cells.

L3   ANSWER 2 OF 104     MEDLINE on STN                 DUPLICATE 2
TI   Differential expression of natural killer cell receptors
     (CD94/NKG2A) on T cells by the stimulation of G-CSF
     -mobilized peripheral blood mononuclear cells with anti-CD3 monoclonal
     antibody and cytokines: a study in stem cell donors.

L3   ANSWER 3 OF 104     MEDLINE on STN                 DUPLICATE 3
TI   Fractionation of Aloe vera L. inner gel, purification and molecular
     profiling of activity.

L3   ANSWER 4 OF 104     MEDLINE on STN                 DUPLICATE 4
TI   Expression and regulation of NFAT (nuclear factors of activated T cells)
     in human CD34+ cells: down-regulation upon myeloid differentiation.

L3   ANSWER 5 OF 104     MEDLINE on STN                 DUPLICATE 5
TI   Treatment of pediatric myelodysplastic syndromes and juvenile
     myelomonocytic leukemia: the Brazilian experience in the past decade.

L3   ANSWER 6 OF 104     MEDLINE on STN                 DUPLICATE 6
TI   G-CSF treatment increases side population cell infiltration after
     myocardial infarction in mice.

L3   ANSWER 7 OF 104     MEDLINE on STN                 DUPLICATE 7
TI   Pleiotropic effects of cytokines on acute myocardial infarction: G-CSF as
     a novel therapy for acute myocardial infarction.
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L3 ANSWER 8 OF 104 MEDLINE on STN DUPLICATE 8
TI Thrombopoietin stimulates ex vivo expansion of mature neutrophils in the early stages of differentiation.

L3 ANSWER 9 OF 104 MEDLINE on STN DUPLICATE 9
TI Stem cell mobilization by G-CSF in solid and hematological malignancies: single daily dose is better than split dose in obese patients.

L3 ANSWER 10 OF 104 MEDLINE on STN DUPLICATE 10
TI Nup98-HoxA9 immortalizes myeloid progenitors, enforces expression of Hoxa9, Hoxa7 and Meis1, and alters cytokine-specific responses in a manner similar to that induced by retroviral co-expression of Hoxa9 and Meis1.

L3 ANSWER 11 OF 104 MEDLINE on STN DUPLICATE 11
TI Normal hemostasis but defective hematopoietic response to growth factors in mice deficient in phospholipid scramblase 1.

L3 ANSWER 12 OF 104 MEDLINE on STN DUPLICATE 12
TI The composition of leukapheresis products impacts on the hematopoietic recovery after autologous transplantation independently of the mobilization regimen.

L3 ANSWER 13 OF 104 MEDLINE on STN DUPLICATE 13
TI Transplantation of mesenchymal derived stem cells followed by G-CSF injection can reconstitute hematopoiesis of lethally irradiated BALB/c mice.

L3 ANSWER 14 OF 104 MEDLINE on STN DUPLICATE 14
TI Granulocyte colony-stimulating factor inhibits Fas-triggered apoptosis in bone marrow cells isolated from patients with refractory anemia with ringed sideroblasts.

L3 ANSWER 15 OF 104 MEDLINE on STN DUPLICATE 15
TI Sequential analysis of CD34+ and CD34- cell subsets in peripheral blood and leukapheresis products from breast cancer patients mobilized with SCF plus G-CSF and cyclophosphamide.

L3 ANSWER 16 OF 104 MEDLINE on STN DUPLICATE 16
TI Physiologically significant effects of pH and oxygen tension on granulopoiesis.

L3 ANSWER 17 OF 104 MEDLINE on STN DUPLICATE 17
TI Differential expression of bcl-2 homologs in human CD34(+) hematopoietic progenitor cells induced to differentiate into erythroid or granulocytic cells.

L3 ANSWER 18 OF 104 MEDLINE on STN DUPLICATE 18
TI Granulocyte-colony stimulating factor impedes recovery from damage caused by cytotoxic agents through increased differentiation at the expense of self-renewal.

L3 ANSWER 19 OF 104 MEDLINE on STN DUPLICATE 19
TI Involvement of the retinoblastoma protein in monocytic and neutrophilic lineage commitment of human bone marrow progenitor cells.

L3 ANSWER 20 OF 104 MEDLINE on STN DUPLICATE 20
TI Hematopoietic growth factor after autologous peripheral blood transplantation: comparison of G-CSF and GM-CSF.

L3 ANSWER 21 OF 104 MEDLINE on STN DUPLICATE 21
TI Expansion of granulocyte colony-stimulating factor/chemotherapy-mobilized

CD34+ hematopoietic progenitors: role of granulocyte-macrophage colony-stimulating factor/erythropoietin hybrid protein (MEN11303) and interleukin-15.

L3 ANSWER 22 OF 104 MEDLINE on STN DUPLICATE 22
TI Nonobese diabetic/severe combined immunodeficiency (NOD/SCID) mouse as a model system to study the engraftment and mobilization of human peripheral blood stem cells.

L3 ANSWER 23 OF 104 MEDLINE on STN DUPLICATE 23
TI Functional studies of maturing myeloid cells during ex vivo expansion for treatment of aplasia: feasibility of ex vivo expansion from cryopreserved bone marrow cell samples.

L3 ANSWER 24 OF 104 MEDLINE on STN DUPLICATE 24
TI Difference between expression of adhesion molecules on CD34+ cells from bone marrow and G-CSF-stimulated peripheral blood.

L3 ANSWER 25 OF 104 MEDLINE on STN DUPLICATE 25
TI Ex vivo expansion of megakaryocyte progenitors: effect of various growth factor combinations on CD34+ progenitor cells from bone marrow and G-CSF-mobilized peripheral blood.

L3 ANSWER 26 OF 104 MEDLINE on STN DUPLICATE 26
TI The Wilms' tumor gene is expressed in a subset of CD34+ progenitors and downregulated early in the course of differentiation in vitro.

L3 ANSWER 27 OF 104 MEDLINE on STN DUPLICATE 27
TI Growth factor receptor expression during in vitro differentiation of partially purified populations containing murine stem cells.

L3 ANSWER 28 OF 104 MEDLINE on STN DUPLICATE 28
TI Circulating CD34+ cell counts as predictive parameter for the efficacy of peripheral stem cell apheresis in Ewing tumor patients.

L3 ANSWER 29 OF 104 MEDLINE on STN DUPLICATE 29
TI Purified unfractionated G-CSF/chemotherapy mobilized CD34+ peripheral blood progenitors and not bone marrow CD34+ progenitors undergo selective erythroid differentiation in liquid culture in the presence of erythropoietin and stem cell factor.

L3 ANSWER 30 OF 104 MEDLINE on STN DUPLICATE 30
TI Increased numbers of long-term culture-initiating cells in the apheresis product of patients randomized to receive increasing doses of stem cell factor administered in combination with chemotherapy and a standard dose of granulocyte colony-stimulating factor.

L3 ANSWER 31 OF 104 MEDLINE on STN DUPLICATE 31
TI Increase of mobilized CD34-positive peripheral blood progenitor cells in patients with Hodgkin's disease, non-Hodgkin's lymphoma, and cancer of the testis.

L3 ANSWER 32 OF 104 MEDLINE on STN DUPLICATE 32
TI Differential effects of TGF-beta 1 on normal and leukemic human hematopoietic cell proliferation.

L3 ANSWER 33 OF 104 MEDLINE on STN DUPLICATE 33
TI Comparison of the inhibitory effect of AcSDKP, TNF-alpha, TGF-beta, and MIP-1 alpha on marrow-purified CD34+ progenitors.

L3 ANSWER 34 OF 104 MEDLINE on STN DUPLICATE 34
TI A unique population of CD34+ cells in cord blood.

L3 ANSWER 35 OF 104 MEDLINE on STN DUPLICATE 35
TI Actions of molecules which regulate hemopoiesis on endothelial cells: memoirs of common ancestors?.

L3 ANSWER 36 OF 104 MEDLINE on STN DUPLICATE 36
TI Predominance of myeloid antigens in CD34-positive peripheral blood stem cells over those in bone marrow after administration of granulocyte colony-stimulating factor.

L3 ANSWER 37 OF 104 MEDLINE on STN DUPLICATE 37
TI In vitro and in vivo effects of recombinant human erythropoietin plus recombinant human G-CSF on human haemopoietic progenitor cells.

L3 ANSWER 38 OF 104 MEDLINE on STN DUPLICATE 38
TI Severe congenital neutropenia: abnormal growth and differentiation of myeloid progenitors to granulocyte colony-stimulating factor (G -CSF) but normal response to G-CSF plus stem cell factor.

L3 ANSWER 39 OF 104 MEDLINE on STN DUPLICATE 39
TI Phenotypically diverse mouse thymic stromal cell lines which induce proliferation and differentiation of hematopoietic cells.

L3 ANSWER 40 OF 104 MEDLINE on STN DUPLICATE 40
TI Differentiation and maturation of growth factor expanded human hematopoietic progenitors assessed by multidimensional flow cytometry.

L3 ANSWER 41 OF 104 MEDLINE on STN DUPLICATE 41
TI Premature expression of the macrophage colony-stimulating factor receptor on a multipotential stem cell line does not alter differentiation lineages controlled by stromal cells used for coculture.

L3 ANSWER 42 OF 104 MEDLINE on STN DUPLICATE 42
TI Development of multipotential haemopoietic stem cells to neutrophils is associated with increased expression of receptors for granulocyte macrophage colony-stimulating factor: altered biological responses to GM-CSF during development.

L3 ANSWER 43 OF 104 MEDLINE on STN DUPLICATE 43
TI Differential effects of recombinant human colony stimulating factor (rh G-CSF) on stem cells in marrow, spleen and peripheral blood in mice.

L3 ANSWER 44 OF 104 MEDLINE on STN DUPLICATE 44
TI Comparative effects of busulfan, cytosine arabinoside and adriamycin on different maturation stages of normal human bone marrow cells.

L3 ANSWER 45 OF 104 MEDLINE on STN DUPLICATE 45
TI The effects of recombinant CSF-1 on the blast cells of acute myeloblastic leukemia in suspension culture.

L3 ANSWER 46 OF 104 MEDLINE on STN DUPLICATE 46
TI A granulocyte colony-stimulating factor from serum-free cultures of RSP-2 X P 3 cells: its separation from a macrophage colony-stimulating factor and its biological and molecular characterization.

L3 ANSWER 47 OF 104 MEDLINE on STN
TI Evaluation of hematopoiesis by granulocyte elastase after hematopoietic stem cell transplantation.

L3 ANSWER 48 OF 104 MEDLINE on STN

TI Influence of FL on ex vivo expansion of hematopoietic cells from cord blood in long-term liquid cultures.

L3 ANSWER 49 OF 104 MEDLINE on STN
TI Hematopoietic differentiation of embryonic stem cells: an in vitro model to study gene regulation during megakaryocytopoiesis.

L3 ANSWER 50 OF 104 MEDLINE on STN
TI [Growth factors in hematology].
Rustove faktory v hematologii.

L3 ANSWER 51 OF 104 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI Regulatable HOX11-mediated immortalization of hematopoietic precursors from mouse embryonic stem cells.

L3 ANSWER 52 OF 104 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI G - CSF/SCF treatments promote functional and structural recovery in ischemic rat brain.

L3 ANSWER 53 OF 104 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI Dynamic Analysis of Stem Cell Self Renewal and Differentiation Using Global Gene Expression Profiling.

L3 ANSWER 54 OF 104 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI The composition of the leukapheresis products after different mobilization regimes impacts on the hematopoietic recovery after autologous transplantation.

L3 ANSWER 55 OF 104 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI A high incidence of autoimmune thyroid disease and autoimmune cytopenia after T-cell depleted allogeneic peripheral blood progenitor cell transplants: Clinical features and analysis of risk factors.

L3 ANSWER 56 OF 104 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI Transplantation of mesenchymal stem cells followed by G-CSF injection can reconstitute hematopoiesis of lethally irradiated BALB/C mice.

L3 ANSWER 57 OF 104 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI Granulocyte-CSF inhibits Fas-triggered apoptosis and enhances erythroid colony growth in bone marrow cells from patients with sideroblastic anemia (RARS).

L3 ANSWER 58 OF 104 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI Roles of granulocyte colony-stimulating factor (G-CSF) in myelopoiesis: An in vivo study in G-CSF deficient mice.

L3 ANSWER 59 OF 104 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI Sequential analysis of CD34+ and CD34- cell subsets in peripheral blood and leukapheresis products from breast cancer patients mobilized with SCF plus G-CSF and cyclophosphamide.

L3 ANSWER 60 OF 104 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN

TI Analysis of signal transduction pathways regulating maturation of human CD34+ progenitors to neutrophils.

L3 ANSWER 61 OF 104 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI Ingenol dibenzoate, an isoform selective agonist of PKC, has pharmacologically distinct activity from that of phorbol-esters and offers improved megakaryopoietic activity.

L3 ANSWER 62 OF 104 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI The use of G-CSF after peripheral stem cell (PBSC) transplant: Beginning at different intervals post infusion.

L3 ANSWER 63 OF 104 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI Differential effects of transforming growth factor (TGF-beta-1) on CFU-C production and colony formation by murine hemopoietic stem cells in serum-free medium stimulated by combinations of steel factor, IL-11, IL-12, G-CSF and IL-3.

L3 ANSWER 64 OF 104 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI Granulocyte recovery is not different following auto-transplant with G-CSF primed bone marrow or G-CSF mobilized peripheral blood "stem cells".

L3 ANSWER 65 OF 104 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI Comparison of different G-CSF schedules in conjunction with cyclophosphamide, etoposide and cisplatin for peripheral blood stem cell (PBSC) mobilization.

L3 ANSWER 66 OF 104 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI EFFECT ON HEMOPOIETIC STEM CELL COMMITMENT OF CHRONIC EXPOSURE TO THE DIFFERENTIATION STIMULI GRANULOCYTE COLONY STIMULATING FACTOR G-CSF OR ERYTHROPOIETIN EPO.

L3 ANSWER 67 OF 104 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI DIFFERENTIAL EFFECTS OF MURINE STROMAL CELL LINES EXPRESSING HUMAN IL-3 GM-CSF OR G-CSF ON THE PRODUCTION OF DIFFERENTIATED CELLS FROM PURIFIED HUMAN HEMOPOIETIC STEM CELLS.

L3 ANSWER 68 OF 104 CAPLUS COPYRIGHT 2008 ACS on STN
TI Nonhematopoietic mesenchymal stem cells can be mobilized and differentiate into cardiomyocytes after myocardial infarction

L3 ANSWER 69 OF 104 CAPLUS COPYRIGHT 2008 ACS on STN
TI G-CSF-mobilized CD34+ cells cultured in interleukin-2 and stem cell factor generate a phenotypically novel monocyte

L3 ANSWER 70 OF 104 CAPLUS COPYRIGHT 2008 ACS on STN
TI Experimental study on the effect of mobilizing autologous bone marrow stem cells on focal cerebral ischemia/reperfusion injury and neuron apoptosis in rat

L3 ANSWER 71 OF 104 CAPLUS COPYRIGHT 2008 ACS on STN

TI Agents promoting the proliferation and/or differentiation of hematopoietic stem cells and/or hematopoietic precursor cells

L3 ANSWER 72 OF 104 CAPLUS COPYRIGHT 2008 ACS on STN
TI Expansion and differentiation of multipotent stem cells in culture

L3 ANSWER 73 OF 104 CAPLUS COPYRIGHT 2008 ACS on STN
TI Uses of G-CSF, GM-CSF and SCF in conjunction with other growth factors for the mobilization of stem cells as a new therapeutic approach to cerebrovascular and spinal cord injury therapy

L3 ANSWER 74 OF 104 CAPLUS COPYRIGHT 2008 ACS on STN
TI Abnormality of blood cell differentiation and proliferation in MDS

L3 ANSWER 75 OF 104 CAPLUS COPYRIGHT 2008 ACS on STN
TI Differentiation of bone marrow cells into cardiomyocytes

L3 ANSWER 76 OF 104 CAPLUS COPYRIGHT 2008 ACS on STN
TI Cytokines and BMP-4 promote hematopoietic differentiation of human embryonic stem cells

L3 ANSWER 77 OF 104 CAPLUS COPYRIGHT 2008 ACS on STN
TI Delayed introduction of G-CSF after chemotherapy does not affect peripheral blood stem cell yield and engraftment kinetics in children with high-risk malignancies: retrospective study of 45 cases

L3 ANSWER 78 OF 104 CAPLUS COPYRIGHT 2008 ACS on STN
TI Etoposide (VP-16) plus G-CSF mobilizes different dendritic cell subsets than does G-CSF alone

L3 ANSWER 79 OF 104 CAPLUS COPYRIGHT 2008 ACS on STN
TI Hybrid cytokines

L3 ANSWER 80 OF 104 CAPLUS COPYRIGHT 2008 ACS on STN
TI Preparation of G-CSF and its salts as promoters for formation of blood cell differentiation inhibiting factor

L3 ANSWER 81 OF 104 CAPLUS COPYRIGHT 2008 ACS on STN
TI Meis1a suppresses differentiation by G-CSF and promotes proliferation by SCF: potential mechanisms of cooperativity with Hoxa9 in myeloid leukemia

L3 ANSWER 82 OF 104 CAPLUS COPYRIGHT 2008 ACS on STN
TI Hematopoietic growth factors in clinical practice

L3 ANSWER 83 OF 104 CAPLUS COPYRIGHT 2008 ACS on STN
TI Differential mobilization of CD34+ cells and lymphoma cells in non-Hodgkin's lymphoma patients mobilized with different growth factors

L3 ANSWER 84 OF 104 CAPLUS COPYRIGHT 2008 ACS on STN
TI In vitro differentiation of endothelial cells from AC133-positive progenitor cells

L3 ANSWER 85 OF 104 CAPLUS COPYRIGHT 2008 ACS on STN
TI Multi-potentiality and differentiation of hematopoietic stem cells

L3 ANSWER 86 OF 104 CAPLUS COPYRIGHT 2008 ACS on STN
TI Rapid differentiation of a rare subset of adult human lin-CD34-CD38- cells stimulated by multiple growth factors in vitro

L3 ANSWER 87 OF 104 CAPLUS COPYRIGHT 2008 ACS on STN
TI Differentiation of hematopoietic stem cells by cytokines

L3 ANSWER 88 OF 104 CAPLUS COPYRIGHT 2008 ACS on STN
TI In vitro proliferation and differentiation of bone marrow stem cells of aplastic anemia patients

L3 ANSWER 89 OF 104 CAPLUS COPYRIGHT 2008 ACS on STN
TI The influence of FL on in vitro expansion of hematopoietic cells from cord blood in long-term liquid cultures

L3 ANSWER 90 OF 104 CAPLUS COPYRIGHT 2008 ACS on STN
TI Uses for Wnt polypeptides in hematopoiesis

L3 ANSWER 91 OF 104 CAPLUS COPYRIGHT 2008 ACS on STN
TI The effects of thrombopoietin (Tpo), granulocyte-colony stimulating factor (G-CSF), erythropoietin (Epo), stem cell factor (SCF), and interleukin-3 (IL-3) on the high-proliferative-potential megakaryocyte mixed (HPP-Meg-Mix) cell: the responsiveness of bone marrow and spleen cells in 5-fluorouracil (5-FU) treated mice

L3 ANSWER 92 OF 104 CAPLUS COPYRIGHT 2008 ACS on STN
TI Probing receptor-ligand interactions by sedimentation equilibrium

L3 ANSWER 93 OF 104 CAPLUS COPYRIGHT 2008 ACS on STN
TI Stromal fibroblast heparan sulfate is required for cytokine-mediated ex vivo maintenance of human long-term culture-initiating cells

L3 ANSWER 94 OF 104 CAPLUS COPYRIGHT 2008 ACS on STN
TI Developmental regulation of myeloid gene expression and demethylation during ex vivo culture of peripheral blood progenitor cells

L3 ANSWER 95 OF 104 CAPLUS COPYRIGHT 2008 ACS on STN
TI Experimental observation on the contents of progenitors and pluripotent hematopoietic stem cells in peripheral blood mobilized by G-CSF

L3 ANSWER 96 OF 104 CAPLUS COPYRIGHT 2008 ACS on STN
TI Effects of various cytokines on growth and differentiation of megakaryoblastic cell line, CMK. Role of cyclin A and retinoblastoma gene product

L3 ANSWER 97 OF 104 CAPLUS COPYRIGHT 2008 ACS on STN
TI Polypeptide derivatives of human granulocyte colony-stimulating factor and monoclonal antibody

L3 ANSWER 98 OF 104 CAPLUS COPYRIGHT 2008 ACS on STN
TI Regulation of blood cell differentiation

L3 ANSWER 99 OF 104 CAPLUS COPYRIGHT 2008 ACS on STN
TI Colony-stimulating factors and host defense

L3 ANSWER 100 OF 104 CAPLUS COPYRIGHT 2008 ACS on STN
TI Comparative effects of busulfan, cytosine arabinoside and adriamycin on different maturation stages of normal human bone marrow cells

L3 ANSWER 101 OF 104 CAPLUS COPYRIGHT 2008 ACS on STN
TI Lymphokines and hemopoietic cell differentiation

L3 ANSWER 102 OF 104 EMBASE COPYRIGHT (c) 2008 Elsevier B.V. All rights reserved on STN
TI [Mobilization of hematopoietic stem cells and possible strategies in the hard-to mobilize patients].
Mobilizace hematopoetickych kmenovych bunek a mozne postupy u tzv. obtizne mobilizovatelnych nemocnych.

L3 ANSWER 103 OF 104 EMBASE COPYRIGHT (c) 2008 Elsevier B.V. All rights reserved on STN
TI The FLT3 ligand is a direct and potent stimulator of the growth of primitive and committed human CD34(+) bone marrow progenitor cells in vitro.

L3 ANSWER 104 OF 104 EMBASE COPYRIGHT (c) 2008 Elsevier B.V. All rights reserved on STN
TI Use of G-CSF alone to mobilize peripheral blood stem cells for collection from children.

=> Log Off h
SESSION WILL BE HELD FOR 120 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 11:31:02 ON 11 APR 2008

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSPTAEGS1646

PASSWORD:
* * * * * * RECONNECTED TO STN INTERNATIONAL * * * * * *
SESSION RESUMED IN FILE 'MEDLINE, BIOSIS, CAPLUS, EMBASE'
AT 12:57:44 ON 11 APR 2008
FILE 'MEDLINE' ENTERED AT 12:57:44 ON 11 APR 2008
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FULL ESTIMATED COST	44.57	44.78

=> D Hist

(FILE 'HOME' ENTERED AT 11:24:13 ON 11 APR 2008)

FILE 'MEDLINE, BIOSIS, CAPLUS, EMBASE' ENTERED AT 11:24:41 ON 11 APR 2008
L1 71 S G-CSF(S)(STEM CELL)(S) DIFFERENT AND PD<=20040415
L2 205 S G-CSF(S)(STEM CELL) (S) DIFFERENT? AND PD<=20040415
L3 104 DUP REM L2 (101 DUPLICATES REMOVED)

=> D Ibib abs L3 7,8,9,13-15,18,20-22,27,37,40,42,43,52,62,66,67,72,73,76,87,100,104

L3 ANSWER 7 OF 104 MEDLINE on STN DUPLICATE 7
ACCESSION NUMBER: 2003247394 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12769752
TITLE: Pleiotropic effects of cytokines on acute myocardial infarction: G-CSF as a novel therapy for acute myocardial infarction.
AUTHOR: Takano Hiroyuki; Ohtsuka Masashi; Akazawa Hiroshi; Toko Haruhiro; Harada Mutsuo; Hasegawa Hiroshi; Nagai Toshio; Komuro Issei
CORPORATE SOURCE: Department of Cardiovascular Science and Medicine, Chiba

University Graduate School of Medicine, 1-8-1 Inohana, Chuo-ku, Japan.
SOURCE: Current pharmaceutical design, (2003) Vol. 9, No. 14, pp. 1121-7. Ref: 104
Journal code: 9602487. ISSN: 1381-6128.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200306
ENTRY DATE: Entered STN: 29 May 2003
Last Updated on STN: 28 Jun 2003
Entered Medline: 27 Jun 2003

AB Many cytokines have been reported to be increased in human and animal models with cardiovascular diseases. Myocardial infarction (MI) is accompanied with an inflammatory reaction which induces cardiac dysfunction and remodeling. The inflammatory reaction has been investigated in animal models of MI or myocardial ischemia-reperfusion injury. The mechanisms by which cytokine cascade is activated in the infarcted myocardium have been recently elucidated. Several hematopoietic growth factors including interleukin-3 (IL-3), IL-6, granulocyte-macrophage colony-stimulating factors (GM-CSF), granulocyte colony-stimulating factor (G-CSF), and stem cell factor (SCF) have been reported to be positive regulators of granulopoiesis and act at different stages of myeloid cell development. G-CSF plays a critical role in regulation of proliferation, differentiation, and survival of myeloid progenitor cells. G-CSF also causes a marked increase in the release of hematopoietic stem cells (HSCs) into the peripheral blood circulation, a process termed mobilization. Although cardiac myocytes have been considered as terminally differentiated cells, it has been recently reported that there are many proliferating cardiac myocytes after MI in human heart. After it was demonstrated that bone marrow stem cells (BMSCs) can differentiate into cardiac myocytes, myocardial regeneration has been widely investigated. Recently, G-CSF has been reported to improve cardiac function and reduces mortality after acute MI. Although the mechanism by which G-CSF ameliorates cardiac dysfunction is not fully understood, there is the possibility that G-CSF may regenerate cardiac myocytes and blood vessels through mobilization of BMSCs. In the future, cytokine-mediated regeneration therapy may become to be a novel therapeutic strategy for MI.

L3 ANSWER 8 OF 104 MEDLINE on STN DUPLICATE 8
ACCESSION NUMBER: 2003564544 MEDLINE
DOCUMENT NUMBER: PubMed ID: 14530871
TITLE: Thrombopoietin stimulates ex vivo expansion of mature neutrophils in the early stages of differentiation.
AUTHOR: Terada Y; Hato F; Sakamoto C; Hasegawa T; Suzuki K; Nakamae H; Ohta K; Yamane T; Kitagawa S; Hino M
CORPORATE SOURCE: Clinical Hematology and Clinical Diagnostics, Graduate School of Medicine, Osaka City University, 1-4-3 Asahi-machi, Abeno-ku, 545-8585 Osaka, Japan.
SOURCE: Annals of hematology, (2003 Nov) Vol. 82, No. 11, pp. 671-6. Electronic Publication: 2003-10-03.
Journal code: 9107334. ISSN: 0939-5555.
PUB. COUNTRY: Germany: Germany, Federal Republic of
DOCUMENT TYPE: (COMPARATIVE STUDY)
Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200312

ENTRY DATE: Entered STN: 16 Dec 2003
Last Updated on STN: 24 Dec 2003
Entered Medline: 23 Dec 2003

AB We examined the effects of thrombopoietin (TPO) in combination with stem cell factor (SCF), interleukin-3 (IL-3), and granulocyte colony-stimulating factor (G-CSF) on the proliferation and differentiation of human neutrophils. Purified CD34(+) hematopoietic progenitor cells were cultivated with SCF, IL-3, and G-CSF for 7 days (early phase), and thereafter nonadherent cells were further cultivated for 9 days with G-CSF alone (late phase). A large number of highly selected neutrophils (>95%) was obtained on day 16. We compared the expansion capacity in the presence or absence of TPO in each culture phase. The significantly larger number of neutrophils was obtained in the presence of TPO in the early culture phase. The number of expanded cells plateaued at day 16. Ultimately, a 550-fold increase in the number of neutrophils was achieved. These neutrophils gained the ability to respond effectively with chemotaxis and superoxide release, and were appropriately primed by G-CSF, granulocyte-macrophage colony-stimulating factor, tumor necrosis factor-alpha, and IL-1beta for enhanced release of O(2)(-). The responsiveness of these cells was identical to that of peripheral blood neutrophils. However, TPO did not accelerate the maturation of neutrophils supported by G-CSF in the late phase of culture. Furthermore, priming effects and triggering effects of TPO on the production of superoxide metabolites from peripheral blood neutrophils were not observed. These results suggest that TPO regulates the proliferation and differentiation of neutrophils in the early stages, but not the late stages, of differentiation.

L3 ANSWER 9 OF 104 MEDLINE on STN DUPLICATE 9
ACCESSION NUMBER: 2003491382 MEDLINE
DOCUMENT NUMBER: PubMed ID: 14569602
TITLE: Stem cell mobilization by G-CSF in solid and hematological malignancies: single daily dose is better than split dose in obese patients.
AUTHOR: Cetin Turker; Arpaci Fikret; Ozet Ahmet; Ozturk Bekir; Komurcu Seref; Ihsan Uzar Ali; Yilmaz Ilker; Beyzadeoglu Murat; Oysul Kaan; Ataergin Selmin; Kuzhan Okan; Pekel Aysel
CORPORATE SOURCE: Department of Hematology, Gulhane Military Medical Academy, Ankara, Turkey.. aturkercetin@yahoo.com
SOURCE: Journal of clinical apheresis, (2003) Vol. 18, No. 3, pp. 120-4.
Journal code: 8216305. ISSN: 0733-2459.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200406
ENTRY DATE: Entered STN: 22 Oct 2003
Last Updated on STN: 3 Jun 2004
Entered Medline: 2 Jun 2004

AB In the past, variable results were reported for single daily and two divided daily doses of granulocyte colony-stimulating factor (G-CSF) in stem cell collection where no study exists investigating the effect of body mass index (BMI) on mobilization. The numbers of CD34(+) cells collected were compared in 86 patients with solid or hematological malignancies receiving either single daily (14 mug/kg/day) G-CSF (filgrastim) as group I (n=36) or two divided doses of G-CSF daily (2 x 7 mug/kg/day) as group II (n = 50). Both groups were divided into subgroups according to their BMI as group a (BMI </=25 kg/m(2)) and group b (BMI >25 kg/m(2)). Two groups were similar in terms of BMI, gender, and disease characteristics. All patients have received G-CSF as a single or two

divided doses subcutaneously and aphereses have been done on the 5th day. No significant difference in numbers of CD34(+) cells between groups Ia and Ib, groups IIa and IIb, and groups Ia and IIa was found. On the other hand, the mean ratio and the number of CD34(+) cells in group Ib were significantly higher than those of group IIb (0.58 +/- 0.06% vs. 0.37 +/- 0.26%, P = 0.01 and 3.67 +/- 0.65 x 10(4)/kg/ml vs. 1.92 +/- 0.37 x 10(4)/kg/ml, P= 0.02). In conclusion, in patients with BMI >25 kg/m(2), once daily G-CSF compared to split dose administration induces a greater number of CD34(+) stem cell mobilization, which suggests the presence of a different pharmacokinetics in obese patients.

L3 ANSWER 13 OF 104 MEDLINE on STN DUPLICATE 13
ACCESSION NUMBER: 2003371867 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12905834
TITLE: Transplantation of mesenchymal derived stem cells followed by G-CSF injection can reconstitute hematopoiesis of lethally irradiated BALB/c mice.
AUTHOR: Hu Ying; Ma Li; Ma Guan-jie; Jiang Xue-ying; Zhao Chun-hua
CORPORATE SOURCE: State Key Lab of Experimental Hematology, Institute of Hematology and Blood Diseases Hospital, CAMS, PUMC, Tianjin 300020, China.
SOURCE: Zhongguo yi xue ke xue yuan xue bao. Acta Academiae Medicinae Sinicae, (2002 Feb) Vol. 24, No. 1, pp. 20-4.
Journal code: 8006230. ISSN: 1000-503X.
PUB. COUNTRY: China
DOCUMENT TYPE: (ENGLISH ABSTRACT)
Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: Chinese
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200406
ENTRY DATE: Entered STN: 9 Aug 2003
Last Updated on STN: 26 Jun 2004
Entered Medline: 25 Jun 2004
AB OBJECTIVE: To explore the hematopoietic reconstitution potential of mesenchymal derived stem like cells. METHODS: We transplanted bone marrow mesenchymal derived stem like cells into lethally irradiated BALB/c mice. Hematopoietic cells were derived from the non-adherent bone marrow cells 24 hours after initial culture while murine mesenchymal derived stem like cells from bone marrow of donor mice were cultured for 10 days before the transplantation. RESULTS: All mice of group 1 and 3 died in 7-8 days post irradiation following transplantation, while all the mice from group 2 and 4 survived. The time course of hematopoietic reconstitution was then observed. The peripheral blood and bone marrow cell count recovered in the MSC + G-CSF transplanted group and the BM transplanted group after 3 weeks. Interestingly, CFU-GM number in the MSC + G-CSF transplanted group increased significantly after 2 weeks and even more than that in the BM transplanted group after 3 weeks while as CFU-GM colony dropped 2 weeks after in the BM transplanted group. Spleen colony (CFU-S) number and size of the MSC + G-CSF transplanted group was significantly greater than the BM transplanted group. Furthermore, PCR analysis was performed using peripheral blood cells to determine if any male-derived cells were present. No male-derived cells were found in any of the mice from group 1 and 3. Y-chromosome-specific src gene was found to be dominant in the MSC + G-CSF transplanted group and the BM transplanted group by week 4 post transplantation. In addition, we demonstrated that induction with G-CSF lead to CFU-GM colony formation from MSC compartment in vitro. CONCLUSION: These results indicate that under stimulation of G-CSF, mesenchymal derived stem like cells might

differentiate into hematopoietic primitive stem cells in vivo and have the capacity to re-establish hematopoiesis in lethally irradiated mice. This study should provide an alternative transplantation treatment for malignancy.

L3 ANSWER 14 OF 104 MEDLINE on STN DUPLICATE 14
ACCESSION NUMBER: 2001273659 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11368434
TITLE: Granulocyte colony-stimulating factor inhibits Fas-triggered apoptosis in bone marrow cells isolated from patients with refractory anemia with ringed sideroblasts.
AUTHOR: Schmidt-Mende J; Tehranchi R; Forsblom A M; Joseph B; Christensson B; Fadeel B; Zhivotovsky B; Hellstrom-Lindberg E
CORPORATE SOURCE: Institute of Environmental Medicine, Karolinska Institutet, Stockholm, Sweden.
SOURCE: Leukemia : official journal of the Leukemia Society of America, Leukemia Research Fund, U.K, (2001 May) Vol. 15, No. 5, pp. 742-51.
Journal code: 8704895. ISSN: 0887-6924.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200105
ENTRY DATE: Entered STN: 4 Jun 2001
Last Updated on STN: 4 Jun 2001
Entered Medline: 31 May 2001
AB Treatment with granulocyte colony-stimulating factor (G-CSF) plus erythropoietin may synergistically improve hemoglobin levels and reduce bone marrow apoptosis in patients with refractory anemia with ringed sideroblasts (RARS). Fas-induced caspase activity is increased in RARS bone marrow cells. We showed that G-CSF significantly reduced Fas-mediated caspase-8 and caspase-3-like activity and the degree of nuclear apoptotic changes in bone marrow from nine RARS patients. A decrease in mitochondrial membrane potential and an increase in intracellular reactive oxygen species occurred in Fas-treated cells, but became significant only 24 h after changes in caspase activity and decrease in proliferation. G-CSF also reduced the magnitude of these late apoptotic changes. In CD34-selected normal cells, G-CSF induced myeloid colony growth, and an overall small decrease in the number of erythroid colonies. By contrast, G-CSF induced a 33-263% increase of erythroid colony formation in CD34+ cells from four of five RARS patients with severely reduced erythroid growth, while the normal or slightly reduced erythroid growth of three other patients was not influenced by G-CSF. This study suggests that G-CSF may reduce the pathologically increased caspase activity and concomitant apoptotic changes, and promote erythroid growth and differentiation of stem cells from RARS patients. Our data support the clinical benefit of G-CSF in this subgroup of myelodysplastic syndromes.

L3 ANSWER 15 OF 104 MEDLINE on STN DUPLICATE 15
ACCESSION NUMBER: 2001183265 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11237067
TITLE: Sequential analysis of CD34+ and CD34- cell subsets in peripheral blood and leukapheresis products from breast cancer patients mobilized with SCF plus G-CSF and cyclophosphamide.
AUTHOR: Menedez P; Prosper F; Bueno C; Arbona C; San Miguel J F; Garcia-Conde J; Sola C; Hornedo J; Cortes-Funes H; Orfao A
CORPORATE SOURCE: Departamento de Medicina and Centro de Investigaciones del

Cancer, Universidad de Salamanca, Spain.
SOURCE: Leukemia : official journal of the Leukemia Society of America, Leukemia Research Fund, U.K, (2001 Mar) Vol. 15, No. 3, pp. 430-9.
Journal code: 8704895. ISSN: 0887-6924.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200103
ENTRY DATE: Entered STN: 4 Apr 2001
Last Updated on STN: 4 Apr 2001
Entered Medline: 29 Mar 2001

AB Administration of stem cell factor (SCF) has been proven to enhance cytokine-induced mobilization of CD34+ hematopoietic progenitor cells (HPC) into the peripheral blood (PB). The aim of the present study was to explore in a homogeneous group of 22 uniformly treated breast cancer patients: (1) the kinetics of mobilization into PB of both CD34+ and CD34- cell subsets, including dendritic cells, in sequential samples obtained from day +7 up to day +12 after mobilization; and (2) the composition of the CD34+ and CD34- cell subsets present in the two leukapheresis products obtained for each patient. The following CD34+ and CD34- subsets were analyzed: early CD34+ HPC, erythroid-, myeloid- and B-lymphoid-committed CD34+ precursor cells, mature T, B and NK cells, monocytes, neutrophils, eosinophils, basophils, and dendritic cells (DC) including three subsets of lin-/HLADR+DC (CD16+, CD33high and CD123high). Our results show that the absolute number of PB CD34+ HPC progressively increases from day +7 onwards. As far as the CD34- PB leukocyte subsets are concerned, monocytes (CD14+) displayed the earliest recovery after mobilization predicting neutrophil recovery 1 day in advance. The number of CD34+ HPC collected in a single leukapheresis product was always > or = 1.4 x 10(6) cells/kg body weight. No significant changes were observed between the two leukapheresis sessions either as regards their composition in CD34+ HPC subsets or their CD34- leukocyte populations except for a higher ratio of both CD34+ erythroid/CD34+ myeloid HPC (0.35 +/- 0.13 vs 0.30 +/- 0.13; P = 0.04) and neutrophils/monocytes (1.58 +/- 2.1 vs 0.69 +/- 0.27; P = 0.009) found for the first leukapheresis. Interestingly, the overall number of dendritic cells (DC) was higher in the second leukapheresis (1.06 +/- 0.56 vs 1.9 +/- 0.46; P = 0.02) due to a selective increase of the CD16+ antigen-presenting cells. In summary, our results show that the combination of cyclophosphamide, G-CSF and SCF is highly effective for stem cell mobilization, with differences observed in the mobilization kinetics of the different hematopoietic cell subsets analyzed.

L3 ANSWER 18 OF 104 MEDLINE on STN DUPLICATE 18
ACCESSION NUMBER: 2000209088 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10742384
TITLE: Granulocyte-colony stimulating factor impedes recovery from damage caused by cytotoxic agents through increased differentiation at the expense of self-renewal.
AUTHOR: van Os R; Robinson S; Sheridan T; Mauch P M
CORPORATE SOURCE: Department of Radiation Oncology, Brigham and Women's Hospital and the Dana Farber Cancer Institute, Harvard Medical School, Boston, Massachustetts, USA.. rvanos@lumc.nl
CONTRACT NUMBER: R01 CA 10941-28 (United States NCI)
SOURCE: Stem cells (Dayton, Ohio), (2000) Vol. 18, No. 2, pp. 120-7.
Journal code: 9304532. ISSN: 1066-5099.
PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200006
ENTRY DATE: Entered STN: 6 Jul 2000
Last Updated on STN: 6 Jul 2000
Entered Medline: 26 Jun 2000

AB G-CSF is routinely used to hasten recovery from chemotherapy-induced neutropenia. We have recently shown that G-CSF, when combined with stem cell-damaging cytotoxic agents, results in enhanced stem cell damage and loss of marrow reserve. To investigate the mechanisms of stem cell damage caused by G-CSF, we gave C57BL/6 (B6) mice repeated doses of cyclophosphamide ([CY] 84 mg/kg) or carmustine ([BCNU] 13.2 mg/kg) and G-CSF (250 microg/kg/day) for either four days or eight days. Two different regimens of G-CSF were chosen to study the influence of increased proliferation on hematopoiesis which was measured at the end of the first, third and sixth 14-day cycle of each cytotoxic agent and 7 and 20 weeks after completion of all cycles. A spectrum of hematopoietic indices was measured including WBC, bone marrow cellularity, granulocyte/macrophage-colony-forming cells (GM-CFC), colony-forming cells with high proliferative-potential (HPP-CFC), cobblestone area-forming cells ([CAFC]-day 7 and CAFC-day 28), and long-term marrow repopulating ability in vivo. Despite the absence of differences in peripheral blood cell counts or bone marrow cellularity 14 days after each dose, progenitor cell levels (HPP-CFC, GM-CFC, and CAFC-7) were increased up to 2.5-fold with cytotoxic agent and G-CSF administration compared with cytotoxic agent administration alone. Mice given G-CSF for eight days had the greatest number of progenitors suggesting a dose-response relationship for G-CSF administration. G-CSF resulted in a decrease in hematopoietic stem cell (CAFC-28) content when measured two weeks after each cycle of saline, CY, and BCNU. Twenty weeks after six cycles of BCNU, the reduction in stem cell levels persisted and was further decreased when G-CSF was added to BCNU for four or eight days. Data from this study suggest that the most likely explanation for the damaging effects of G-CSF is that G-CSF directly or indirectly induces stem cells to differentiate into more committed hematopoietic cells resulting in a loss of marrow reserve. This effect is enhanced in animals with an already compromised hematopoietic stem cell compartment as seen with repeated doses of BCNU.

L3 ANSWER 20 OF 104 MEDLINE on STN DUPLICATE 20
ACCESSION NUMBER: 1999341877 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10414911
TITLE: Hematopoietic growth factor after autologous peripheral blood transplantation: comparison of G-CSF and GM-CSF.
AUTHOR: Jansen J; Thompson E M; Hanks S; Greenspan A R; Thompson J M; Dugan M J; Akard L P
CORPORATE SOURCE: Indiana Blood and Marrow Transplantation, Indianapolis 46202, USA.
SOURCE: Bone marrow transplantation, (1999 Jun) Vol. 23, No. 12, pp. 1251-6.
Journal code: 8702459. ISSN: 0268-3369.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: (CLINICAL TRIAL)
(COMPARATIVE STUDY)
(CONTROLLED CLINICAL TRIAL)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199909
ENTRY DATE: Entered STN: 21 Sep 1999

Last Updated on STN: 21 Sep 1999
Entered Medline: 8 Sep 1999

AB Autologous peripheral blood stem cell (PBSC) transplantation results in rapid hematologic recovery when sufficient numbers of CD34+ cells/kg are infused. Recent studies suggest that filgrastim (G-CSF) administration following transplantation leads to more rapid neutrophil recovery and lower total transplant costs. This study compares the use of G-CSF (5 microg/kg/day) with sargramostim (GM-CSF) 500 microg/day from day 0 until neutrophil recovery (ANC >1500/mm3) in patients with breast cancer or myeloma who had PBSC mobilized with the combination of cyclophosphamide, etoposide, and G-CSF. Twenty patients (13 breast cancer and seven myeloma) received GM-CSF and 26 patients (14 breast cancer and 12 myeloma) received G-CSF. The patients were comparable for age and stage of disease, and received stem cell grafts that were not significantly different (CD34+ x 10(6)/kg was 12.5 +/- 11.1 (mean +/- s.d.) for GM-CSF and 19.8 +/- 18.5 for G-CSF ; P = 0.10). The use of red cells (2.8 vs 2.3 units), and platelet transfusions (2.5 vs 3.1) was similar for the two groups, as was the use of intravenous antibiotics (4.3 vs 4.6 days) and the number of days with temperature >38.3 degrees C (2.3 vs 1.8). Platelet recovery was also similar in both groups (platelets >50,000/mm3 reached after 11.8 vs 14.9 days). The recovery of neutrophils, however, was faster using G-CSF. ANC >500/mm3 and >1000/mm3 were reached in the GM-CSF group at 10.5 +/- 1.5 and 11.0 +/- 1.7 days, respectively, whereas with G-CSF only 8.8 +/- 1.2 and 8.9 +/- 2.2 days were required (P < 0.001). As a result, patients given G-CSF received fewer injections than the GM-CSF patients (10.9 vs 12.3). Resource utilization immediately attributable to the use of growth factors and the duration of pancytopenia, excluding hospitalization, were similar for the two groups. This study suggests that neutrophil recovery occurs more quickly following autologous PBSC transplant using G-CSF in comparison to GM-CSF, but the difference is not extensive enough to result in lower total cost.

L3 ANSWER 21 OF 104 MEDLINE on STN DUPLICATE 21

ACCESSION NUMBER: 1999189773 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10089903
TITLE: Expansion of granulocyte colony-stimulating factor/chemotherapy-mobilized CD34+ hematopoietic progenitors: role of granulocyte-macrophage colony-stimulating factor/erythropoietin hybrid protein (MEN11303) and interleukin-15.
AUTHOR: Pierelli L; Scambia G; Bonanno G; Coscarella A; De Santis R; Mele A; Battaglia A; Fattorossi A; Romeo V; Menichella G; Mancuso S; Leone G
CORPORATE SOURCE: Department of Hematology, Catholic University, Rome, Italy.
SOURCE: Experimental hematology, (1999 Mar) Vol. 27, No. 3, pp. 416-24.
Journal code: 0402313. ISSN: 0301-472X.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: (COMPARATIVE STUDY)
Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199904
ENTRY DATE: Entered STN: 4 May 1999
Last Updated on STN: 3 Mar 2000
Entered Medline: 21 Apr 1999

AB Ex vivo stroma-free static liquid cultures of granulocyte colony-stimulating factor (G-CSF)/chemotherapy-mobilized CD34+ cells were established from patients with epithelial solid tumors. Different culture conditions were generated by adding G-CSF,

granulocyte-macrophage colony-stimulating factor (GM-CSF), Flt3 ligand (Flt3), megakaryocyte growth and development factor (Peg-rHuMGDF), GM-CSF/erythropoietin (EPO) hybrid protein (MEN11303), and interleukin-15 (IL-15) to the basic stem cell factor (SCF) + interleukin-3 (IL-3) + EPO combination. This study showed that, among the nine different combinations tested in our 5% autologous plasma-containing cultures, only those containing IL-3/SCF/Flt3/MEN11303 and IL-3/SCF/Flt3/MEN11303/IL-15 significantly expanded colony-forming unit granulocyte-macrophage (CFU-GM), burst-forming unit erythroid (BFU-E), long-term culture-initiating cells (LTC-IC), CD34+, and CD34+/CD38- cells after 14 days of culture. Particularly, the addition of IL-15 to IL-3/SCF/Flt3/MEN11303 combination produced a significant increase of LTC-IC, with an average 26-fold amplification as compared to input cells, without any detrimental effect on CFU-GM and BFU-E expansion. This combination also produced a statistically significant 3.6-fold expansion of primitive CD34+/CD38- cells. Moreover, this study confirms the previously described erythropoietic effect of MEN11303, which, in our experience, was the only factor capable of expanding BFU-E. Compared to equimolar concentrations of GM-CSF and EPO, MEN11303 hybrid protein showed a significantly higher capacity of expanding CFU-GM, BFU-E, LTC-IC, CD34+, and CD34+/CD38- cells when these cytokines were tested in combination with IL-3/SCF/Flt3. These cultures indicated that Peg-rHuMGDF addition to IL-3/SCF/EPO/Flt3 does not affect CFU-GM and BFU-E expansion but, unlike G-CSF or GM-CSF, it does not decrease the ability of Flt3 to expand primitive LTC-IC. These studies indicate that, starting from G-CSF/chemotherapy-mobilized CD34+ cells, concomitant expansion of primitive LTC-IC, CFU-GM, BFU-E, CD34+, and CD34+/CD38- cells is feasible in simple stroma-free static liquid cultures, provided IL-3/SCF/Flt3/MEN11303/IL-15 combination is used as expanding cocktail in the presence of 5% autologous plasma.

L3 ANSWER 22 OF 104 MEDLINE on STN DUPLICATE 22

ACCESSION NUMBER: 1998421403 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9746798
TITLE: Nonobese diabetic/severe combined immunodeficiency (NOD/SCID) mouse as a model system to study the engraftment and mobilization of human peripheral blood stem cells.
AUTHOR: van der Loo J C; Hanenberg H; Cooper R J; Luo F Y; Lazaridis E N; Williams D A
CORPORATE SOURCE: Department of Pediatrics, Section of Hematology/Oncology, Herman B Wells Center for Pediatric Research, Indiana University School of Medicine, Indiana, IN, 46202, USA.
CONTRACT NUMBER: P50 DK 49218 (United States NIDDK)
SOURCE: Blood, (1998 Oct 1) Vol. 92, No. 7, pp. 2556-70.
Journal code: 7603509. ISSN: 0006-4971.
PUB. COUNTRY: United States
DOCUMENT TYPE: (COMPARATIVE STUDY)
Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 199810
ENTRY DATE: Entered STN: 29 Oct 1998
Last Updated on STN: 29 Oct 1998
Entered Medline: 19 Oct 1998
AB Mobilized CD34(+) cells from human peripheral blood (PB) are increasingly used for hematopoietic stem-cell transplantation. However, the mechanisms involved in the mobilization of human hematopoietic stem and progenitor cells are largely unknown. To study the mobilization of human progenitor cells in an experimental animal model in response to different treatment regimens, we injected intravenously a total of 92 immunodeficient nonobese diabetic/severe combined immunodeficiency (NOD/SCID) mice with various

numbers of granulocyte colony-stimulating factor (G-CSF) -mobilized CD34(+) PB cells (ranging from 2 to 50 x 10(6) cells per animal). Engraftment of human cells was detectable for up to 6.5 months after transplantation and, depending on the number of cells injected, reached as high as 96% in the bone marrow (BM), displaying an organ-specific maturation pattern of T- and B-lymphoid and myeloid cells. Among the different mobilization regimens tested, human clonogenic cells could be mobilized from the BM into the PB (P = .019) with a high or low dose of human G-CSF, alone or in combination with human stem-cell factor (SCF), with an average increase of 4.6-fold over control. Therefore, xenotransplantation of human cells in NOD/SCID mice will provide a basis to further study the mechanisms of mobilization and the biology of the mobilized primitive human hematopoietic cell.

L3 ANSWER 27 OF 104 MEDLINE on STN DUPLICATE 27
ACCESSION NUMBER: 97324799 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9180904
TITLE: Growth factor receptor expression during in vitro differentiation of partially purified populations containing murine stem cells.
AUTHOR: Ashihara E; Vannucchi A M; Migliaccio G; Migliaccio A R
CORPORATE SOURCE: Laboratory of Hematopoietic Growth Factors, Lindsley F. Kimball Research Institute, New York Blood Center, New York 10021, USA.
SOURCE: Journal of cellular physiology, (1997 Jun) Vol. 171, No. 3, pp. 343-56.
Journal code: 0050222. ISSN: 0021-9541.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199707
ENTRY DATE: Entered STN: 16 Jul 1997
Last Updated on STN: 16 Jul 1997
Entered Medline: 1 Jul 1997

AB We have investigated, by semiquantitative RT-PCR, the kinetics of activation of hematopoietic receptors and differentiation markers in partially purified murine hematopoietic stem cells (HSC) induced to differentiate in serum-free culture with combinations of growth factor (GF). The combinations of GF used sustained either multilineage [stem cell factor (SCF) + interleukin 3 (IL-3), or erythroid [SCF + IL-3 + erythropoietin (Epo)] or myeloid [SCF + IL-3 + granulocyte colony-stimulating factor (G-CSF)] differentiation. The GF receptor genes investigated were the alpha and beta subunits of the IL-3 and granulocyte-macrophage colony-stimulating factor (GM-CSF) receptor, the erythropoietin receptor, the G-CSF receptor, and c-Fms, the receptor for macrophage colony-stimulating factor (M-CSF). The expression of Gata1 and alpha- and beta-globin was investigated at the same time as a marker of erythroid differentiation. HSC were purified according to standard protocols, which include partitioning of lineage-negative bone marrow cells with the mitochondrial dye Rhodamine 123 (Rho) into Rho-dull (> or = 17% of which reconstitute long-term hematopoiesis in recipient mice) and into Rho-bright (which are as capable as Rho-dull of multilineage differentiation but do not permanently reconstitute the host). The following pattern of expression was observed: the alpha subunit of the IL-3 receptor clearly was expressed in both Rho-bright and Rho-dull cells at the outset, and its expression did not change over time in culture. The beta subunits of the IL-3 and GM-CSF receptor, the alpha subunit of the GM-CSF receptor, the Epo and G-CSF receptors and Fms barely were

expressed in purified Rho-bright and Rho-dull cells, but their expression increased in cells cultured both in erythroid and in myeloid GF combinations. Gata1 was expressed maximally in Rho-bright cells but was below the level of detection in Rho-dull cells. Rho-dull cells expressed Gata1 when cultured both in erythroid and in myeloid GF combinations. In contrast, alpha- and beta-globin, which also were not expressed in the purified cells, were induced only in cells stimulated with Epo. These results indicate that the genes for all the GF receptors investigated (with the exception of the alpha subunit of the IL-3 receptor) are expressed at low levels, if any, in purified Rho-bright or Rho-dull cells, but are expressed in their progeny cultured either in erythroid or myeloid GF combinations. The expression of the Epo receptor, in particular, is activated both in erythroid (alpha- and beta-globin positive and in myeloid (alpha- and beta-globin negative) cells. Therefore, activation of the expression of the Epo receptor gene and activation of the erythroid differentiation program are two independent events in normal hematopoiesis.

L3 ANSWER 37 OF 104 MEDLINE on STN DUPLICATE 37
ACCESSION NUMBER: 95038605 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7524905
TITLE: In vitro and in vivo effects of recombinant human erythropoietin plus recombinant human G-CSF on human haemopoietic progenitor cells.
AUTHOR: Pierelli L; Menichella G; Scambia G; Teofili L; Iovino S; Serafini R; Benedetti Panici P; Salerno G; Rumi C; Zini G; +
CORPORATE SOURCE: Centro Richerche per la Manipolazione dei Costituenti Ematici, Catholic University, Rome, Italy.
SOURCE: Bone marrow transplantation, (1994 Jul) Vol. 14, No. 1, pp. 23-30.
Journal code: 8702459. ISSN: 0268-3369.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: (IN VITRO)
Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199412
ENTRY DATE: Entered STN: 10 Jan 1995
Last Updated on STN: 29 Jan 1996
Entered Medline: 7 Dec 1994

AB We tested in vitro the effect of recombinant human erythropoietin (rhEPO) plus recombinant human G-CSF (rhG-CSF) on purified human CD34+ haemopoietic progenitors (HP) and in vivo in patients who had undergone anti-cancer chemotherapy for advanced ovarian cancer. In this preliminary experience we found that, in vitro, rhEPO potentiates the effect of rhG-CSF on HP growth and differentiation toward the granulocyte-macrophage lineage. rhEPO plus rhG-CSF produced in vitro a proliferative stimulus of HP which represents 26% of the maximum stimulation obtained using IL-1, IL-3, IL-6, G-CSF, GM-CSF and stem cell factor in combination. In the patients treated with rhEPO plus rhG-CSF after chemotherapy, we observed a favourable trend for platelet and neutrophil recoveries compared with a control group treated with rhG-CSF alone and a significantly higher haematocrit nadir was observed in the rhEPO plus rhG-CSF series. In the patients treated with rhEPO plus rhG-CSF we observed a significant increase of circulating colony-forming unit granulocyte-macrophage (CFU-GM) and burst forming unit-erythroid (BFU-e) compared with the rhG-CSF series. Our results, in vitro and in vivo, encourage the in vivo use of rhEPO plus rhG-CSF to improve blood cell recoveries of patients who have undergone conventional or high-dose chemotherapy. Moreover, rhEPO

plus rhG-CSF was demonstrated to be a good HP mobilising treatment for blood stem cell collection after chemotherapy.

L3 ANSWER 40 OF 104 MEDLINE on STN DUPLICATE 40
ACCESSION NUMBER: 93022880 MEDLINE
DOCUMENT NUMBER: PubMed ID: 1405753
TITLE: Differentiation and maturation of growth factor expanded human hematopoietic progenitors assessed by multidimensional flow cytometry.
AUTHOR: Terstappen L W; Buescher S; Nguyen M; Reading C
CORPORATE SOURCE: Becton Dickinson Immunocytometry Systems, San Jose, CA 95131.
SOURCE: Leukemia : official journal of the Leukemia Society of America, Leukemia Research Fund, U.K, (1992 Oct) Vol. 6, No. 10, pp. 1001-10.
Journal code: 8704895. ISSN: 0887-6924.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: (IN VITRO)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199211
ENTRY DATE: Entered STN: 22 Jan 1993
Last Updated on STN: 22 Jan 1993
Entered Medline: 16 Nov 1992
AB Non-adherent cord blood and bone marrow mononuclear cells were analyzed by multiparameter flow cytometry before and at day 2, 4, 7, and 11 of culture in recombinant interleukin 3 (IL-3) and granulocyte colony-stimulating factor (G-CSF, cord blood) or stem cell factor (SCF), IL3 and granulocyte-macrophage colony-stimulating factor (GM-CSF, BM) to assess the differentiation and maturational pathway of myeloid cells. Before cell culture cord blood contained progenitor cells (CD34+) in various differentiation stages (CD38(-)----CD38bright), mature lymphocytes, monocytes, and neutrophils, but no immature neutrophils and immature monocytes. During cell culture, all CD34+ cells acquired the CD38 antigen between day 2 and 5 of cell culture, the CD34 antigen was lost between day 5 and 11 of cell culture. Differentiation of cells into the myeloid cell lineage was characterized by the acquisition of both CD33 and CD71. The latter is indicative for the active proliferation of these cells. Maturation of the cells into the neutrophilic pathway was indicated by the acquisition of first the CD15 antigen followed by CD11b and CD16 respectively. Whereas maturation of the cells into the monocytic pathway was indicated by the acquisition of first CD11b followed by CD14 and a dim expression of both CD15 and CD16. In normal bone marrow, cells of various maturational stages are already present before cell culture. During cell culture differentiation of cells into the myeloid lineage and maturation of the cells along the monocyte and neutrophilic lineage followed identical pathways as was observed before cell culture. Differentiation and maturational pathways of cord blood and adult bone marrow were identical. The results confirm the surface-antigen-defined pathways of myeloid cell differentiation described previously for non-cultured normal bone marrow aspirates. The detailed assessment of cell maturation and differentiation of cultured cells by multidimensional flow cytometry permits the determination of the specific effects of various recombinant human growth factors on myeloid cells.

L3 ANSWER 42 OF 104 MEDLINE on STN DUPLICATE 42
ACCESSION NUMBER: 92118404 MEDLINE
DOCUMENT NUMBER: PubMed ID: 1837466
TITLE: Development of multipotential haemopoietic stem cells to neutrophils is associated with increased expression of

receptors for granulocyte macrophage colony-stimulating factor: altered biological responses to GM-CSF during development.
AUTHOR: Heyworth C M; Hampson J; Dexter T M; Walker F; Burgess A W; Kan O; Cook N; Vallance S J; Whetton A D
CORPORATE SOURCE: Cancer Research Campaign Department of Experimental Haematology, Paterson Institute for Cancer Research, Withington, Manchester, UK.
SOURCE: Growth factors (Chur, Switzerland), (1991) Vol. 5, No. 2, pp. 87-98.
Journal code: 9000468. ISSN: 0897-7194.
PUB. COUNTRY: Switzerland
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199202
ENTRY DATE: Entered STN: 15 Mar 1992
Last Updated on STN: 15 Mar 1992
Entered Medline: 24 Feb 1992

AB Interleukin-3 (IL-3) dependent multipotent haemopoietic stem cells FDCP-Mix A4 (A4) were induced to differentiate and develop into mature neutrophils in response to Granulocyte Macrophage Colony Stimulating Factor (GM-CSF) plus granulocyte CSF (G-CSF). This resulted in an increase in cell number over seven days of culture, following which the cells lost the ability to undergo further proliferation. The effect of GM-CSF on these cells has been assessed at various stages of development. Clonogenic cells, able to respond to GM-CSF, were generated only at days 3, 4 post-induction. From day 5 onwards, mature post-mitotic neutrophils are produced and clonogenic cells are lost. Loss of proliferative potential, in response to GM-CSF, was confirmed using [3H]-thymidine incorporation. Receptors for GM-CSF, were also measured during development using [125I]-GM-CSF binding assays. Although the dissociation constant for GM-CSF binding sites did not vary considerably, the number of such sites increased dramatically from about 20 (day 0, when the cells have a primitive morphology) to about 1000 by day 6 (when the cells are predominantly mature neutrophils). GM-CSF-stimulated Na+/H+ antiport activation was also determined. Although few GM-CSF receptors are expressed at day 0, there is a significant response (63% of maximal) to GM-CSF in terms of intracellular alkalinisation: this response increased markedly until, by day 4 (700 GM-CSF binding sites/cell), there is a maximal activation of the antiport by GM-CSF. By day 7 (greater than 900 GM-CSF binding sites/cell), however, there is significant reduction in activation of the Na+/H+ antiport by GM-CSF. Nonetheless, increased viability of these mature cells is still seen in response to GM-CSF. These results suggest that not only does expression of GM-CSF receptors alter during development of multipotential cells to mature neutrophils, but that these receptors are coupled to different intracellular effector mechanisms as the cells progressively mature.

L3 ANSWER 43 OF 104 MEDLINE on STN DUPLICATE 43
ACCESSION NUMBER: 91242320 MEDLINE
DOCUMENT NUMBER: PubMed ID: 1709805
TITLE: Differential effects of recombinant human colony stimulating factor (rh G-CSF) on stem cells in marrow, spleen and peripheral blood in mice.
AUTHOR: Bungart B; Loeffler M; Goris H; Dontje B; Diehl V; Nijhof W
CORPORATE SOURCE: Medizinische Klinik I, University of Cologne, F.R.G.
SOURCE: British journal of haematology, (1990 Oct) Vol. 76, No. 2, pp. 174-9.

Journal code: 0372544. ISSN: 0007-1048.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: (COMPARATIVE STUDY)
Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199107
ENTRY DATE: Entered STN: 19 Jul 1991
Last Updated on STN: 29 Jan 1996
Entered Medline: 2 Jul 1991

AB Previously it has been hypothesized that the granulopoietic and erythropoietic lineages may compete for differentiating stem cells. According to this hypothesis one would expect that a stimulation of granulopoiesis by G-CSF administration would lead to a reduction of the stem cell pool and be followed by a decline of erythropoietic progenitor numbers. In addition one would expect an enhanced response of granulopoiesis if G-CSF administration were combined with suppression of erythropoiesis by red cell transfusion. To evaluate whether this hypothesis holds true C57bl mice were injected subcutaneously for 6 d with 3.75 micrograms rh G-CSF/mouse/d (150 micrograms G-CSF/kg body weight/d). Marrow CFU-S numbers showed an increase to 160% on day 2, followed by a decrease to 50% of control on day 6. Splenic and peripheral blood CFU-S increased 20-fold and 10-fold, respectively. Marrow CFU-E declined to 40% of the control value. Splenic CFU-E increased 10-fold. The increase in marrow CFU-GM numbers ranged between 140% and 180%. CFU-GM obtained from the spleen and the peripheral blood increased 60-fold and 15-fold, respectively. Regarding the CFU-S and CFU-GM a similar pattern of response was found in an experiment where rh G-CSF administration was combined with an additional red cell transfusion. These data do not provide convincing evidence for an exhaustion of haemopoietic stem cells during treatment with G-CSF. They rather suggest that an important side effect of G-CSF treatment is a release of CFU-S and progenitors from the marrow to the peripheral blood and a reseeding in the spleen.

L3 ANSWER 52 OF 104 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 2004:193954 BIOSIS
DOCUMENT NUMBER: PREV200400194514
TITLE: G - CSF/SCF treatments promote functional and structural recovery in ischemic rat brain.
AUTHOR(S): Wang, J. [Reprint Author]; Glenn, B. [Reprint Author]; Jiao, S. [Reprint Author]; Zhang, M. [Reprint Author]; Hever, G. [Reprint Author]; Kuang, R. [Reprint Author]; Louis, J. [Reprint Author]; Magal, E. [Reprint Author]
CORPORATE SOURCE: Neurosci. Dept, Thousand Oaks, CA, USA
SOURCE: Society for Neuroscience Abstract Viewer and Itinerary Planner, (2003) Vol. 2003, pp. Abstract No. 102.13. http://sfn.scholarone.com. e-file.
Meeting Info.: 33rd Annual Meeting of the Society of Neuroscience. New Orleans, LA, USA. November 08-12, 2003. Society of Neuroscience.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 14 Apr 2004
Last Updated on STN: 14 Apr 2004

AB The cerebral ischemia leads to rapid death of neurons in the brain. Currently it is recognized that stem cells have the capacity to colonize different tissues, proliferate, and transdifferentiate into cell lineages of the host organ. This high degree of stem cell plasticity prompted us to hypothesize that a sufficient number of BMC

mobilized by stem cell factor (SCF) and granulocyte-colony-stimulating factor (G-CSF, Amgen) would home to the infarct regions of the brain, replicate, differentiate, and ultimately promote cerebral repair. To test this hypothesis, SD male rats were splenectomized and 2 weeks later were injected s.c. with recombinant rat SCF, 200ug/kg/day, and G-CSF, 50ug/kg/day, once a day for 5 days. The right middle cerebral artery occlusion (MCAO) was induced by an intraluminal suture technique to create neurological deficits and cerebral infarction. The treatment with the two factors continued for additional 5 days. Control groups consisted of splenectomized MCAO rats (vehicle group) and sham-operated rats (sham group) injected with saline. We found that the combined treatment provided a significant neuroprotection after MCAO insult. The neurological functions were significantly improved in animals treated with SCF and G-CSF and cerebral infarct volume was significantly reduced by 72% compared with control group ($p<0.001$). Immunohistochemistry revealed the existence of newly formed neurons (double staining with BrdU and NeuN antibodies) and glial cells (double staining with BrdU and GFAP antibodies) in the infarct brain area. These findings suggest that new neurons formed from stem cells mobilized by G-CSF/SCF may play a role in the neuroprotection following MCAO in the rat.

L3 ANSWER 62 OF 104 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN

ACCESSION NUMBER: 1997:56756 BIOSIS
DOCUMENT NUMBER: PREV199799355959
TITLE: The use of G-CSF after peripheral stem cell (PBSC) transplant: Beginning at different intervals post infusion.
AUTHOR(S): Topolsky, D.; King, R.; Mullaney, R.; Styler, M.; Crilley, P.; Sabol, P.; Brodsky, I.
CORPORATE SOURCE: Bone Marrow Transplant Program, Dep. Med., Allegheny Univ. Hosp., Center City, Philadelphia, PA, USA
SOURCE: Blood, (1996) Vol. 88, No. 10 SUPPL. 1 PART 1-2, pp. 260B.
Meeting Info.: Thirty-eighth Annual Meeting of the American Society of Hematology. Orlando, Florida, USA. December 6-10, 1996.
CODEN: BLOOAW. ISSN: 0006-4971.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 4 Feb 1997
Last Updated on STN: 4 Feb 1997

L3 ANSWER 66 OF 104 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN

ACCESSION NUMBER: 1991:467914 BIOSIS
DOCUMENT NUMBER: PREV199141093674; BR41:93674
TITLE: EFFECT ON HEMOPOIETIC STEM CELL COMMITMENT OF CHRONIC EXPOSURE TO THE DIFFERENTIATION STIMULI GRANULOCYTE COLONY STIMULATING FACTOR G-CSF OR ERYTHROPOIETIN EPO.
AUTHOR(S): JOHNSON G R [Reprint author]; CHANG J M; VILLEVAL J-L
CORPORATE SOURCE: THE WALTER AND ELIZA HALL INST MED RES, MELBOURNE, VICTORIA, AUSTRALIA
SOURCE: Experimental Hematology (Charlottesville), (1991) Vol. 19, No. 6, pp. 501.
Meeting Info.: 20TH ANNUAL MEETING OF THE INTERNATIONAL SOCIETY FOR EXPERIMENTAL HEMATOLOGY, PARMA, ITALY, JULY 21-25, 1991. EXP HEMATOL (N Y).

CODEN: EXHMA6. ISSN: 0301-472X.
DOCUMENT TYPE: Conference; (Meeting)
FILE SEGMENT: BR
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 21 Oct 1991
Last Updated on STN: 8 Jan 1992

L3 ANSWER 67 OF 104 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1990:395489 BIOSIS
DOCUMENT NUMBER: PREV199039066450; BR39:66450
TITLE: DIFFERENTIAL EFFECTS OF MURINE STROMAL CELL LINES EXPRESSING HUMAN IL-3 GM-CSF OR G-CSF ON THE PRODUCTION OF DIFFERENTIATED CELLS FROM PURIFIED HUMAN HEMOPOIETIC STEM CELLS.
AUTHOR(S): SUTHERLAND H J [Reprint author]; EAVES C J; LANSDORP P M; THACKER J D; HOGGE D E
CORPORATE SOURCE: TERRY FOX LAB, CANCER CONTROL AGENCY BC, VANCOUVER, BC
SOURCE: Experimental Hematology (Charlottesville), (1990) Vol. 18, No. 6, pp. 578.
Meeting Info.: 19TH ANNUAL MEETING OF THE INTERNATIONAL SOCIETY FOR EXPERIMENTAL HEMATOLOGY, SEATTLE, WASHINGTON, USA, AUGUST 26-30, 1990. EXP HEMATOL (N Y).
CODEN: EXHMA6. ISSN: 0301-472X.
DOCUMENT TYPE: Conference; (Meeting)
FILE SEGMENT: BR
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 30 Aug 1990
Last Updated on STN: 30 Aug 1990

L3 ANSWER 72 OF 104 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2003:431551 CAPLUS
DOCUMENT NUMBER: 140:213571
TITLE: Expansion and differentiation of multipotent stem cells in culture
INVENTOR(S): Hossfeld, Dieter Kurt; Fiedler, Walter; Gehling, Ursula; Loges, Sonja
PATENT ASSIGNEE(S): Universitaetsklinikum Hamburg-Eppendorf, Germany
SOURCE: PCT Int. Appl., 63 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003046161	A2	20030605	WO 2002-EP13142	20021122 <--
WO 2003046161	A3	20040212		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10158680	A1	20030612	DE 2001-10158680	20011130 <--
DE 10158680	B4	20040408		
AU 2002352100	A1	20030610	AU 2002-352100	20021122 <--

EP 1453951 A2 20040908 EP 2002-787775 20021122
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK
US 20060051330 A1 20060309 US 2005-497101 20050309
PRIORITY APPLN. INFO.: DE 2001-10158680 A 20011130
WO 2002-EP13142 W 20021122

AB Culture conditions and growth factors that support the expansion of multipotent stem cells in culture are described. The invention also relates to a two-stage method for the expansion and differentiation of multipotent stem cells in ex vivo, during which the stem cells in the first stage, i.e. during the expansion phase, can be transformed with foreign DNA. In the phase, the differentiation of the multipotent stem cells optionally ensues to give hematopoietic, endothelial or mesenchymal cells. Stem cells, progenitor cells and mature cells of the hematopoietic, endothelial and mesenchymal cell line, all of which having been obtained in the aforementioned manner, can be used, among other things, for the prophylaxis, diagnosis, and treatment of human diseases and for tissue engineering. Methods of selecting CD133 antigen-bearing cells from monocytes and conditions for culturing them are described.

L3 ANSWER 73 OF 104 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2003:573223 CAPLUS
DOCUMENT NUMBER: 139:111699
TITLE: Uses of G-CSF, GM-CSF and SCF in conjunction with other growth factors for the mobilization of stem cells as a new therapeutic approach to cerebrovascular and spinal cord injury therapy
INVENTOR(S): Pourquier, Didier; Moukoko, Didier
PATENT ASSIGNEE(S): Fr.
SOURCE: Fr. Demande, 24 pp.
CODEN: FRXXBL
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2834898	A1	20030725	FR 2002-610	20020118 <--
FR 2834898	B1	20050610		
WO 2003061685	A1	20030731	WO 2003-FR13	20030106 <--

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

EP 1465653 A1 20041013 EP 2003-712209 20030106
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
PRIORITY APPLN. INFO.: FR 2002-610 A 20020118
WO 2003-FR13 W 20030106

AB The invention relates to a new therapeutic application of at least of the factors chosen among G-CSF (granulocyte colony-stimulating factor), GM-CSF (macrophages-granulocytes colony-stimulating factor) and the SCF (stem cell factor). This factor is to be used in the preparation of a useful drug for auxiliary treatment leading to the reconstruction of nerve fibers. G-CSF, GM-CSF and SCF are particularly useful as drugs for the treatment

of ischemic or hemorrhagic cerebrovascular accidents, cerebral traumas, ischemic or hemorrhagic vascular accidents of the spinal cord, and spinal cord traumas. Administration is intended in a general way, both for human and veterinary medicine.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 76 OF 104 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2003:594536 CAPLUS
DOCUMENT NUMBER: 139:148252
TITLE: Cytokines and BMP-4 promote hematopoietic differentiation of human embryonic stem cells
AUTHOR(S): Chadwick, Kristin; Wang, Lisheng; Li, Li; Menendez, Pablo; Murdoch, Barbara; Rouleau, Anne; Bhatia, Mickie
CORPORATE SOURCE: Robarts Research Institute, Stem Cell Biology and Regenerative Medicine, London, ON, Can.
SOURCE: Blood (2003), 102(3), 906-915
CODEN: BLOOAW; ISSN: 0006-4971
PUBLISHER: American Society of Hematology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Human embryonic stem cells (hESCs) randomly differentiate into multiple cell types during embryoid body (EB) development. To date, characterization of specific factors capable of influencing hematopoietic cell fate from hESCs remains elusive. Here, we report that the treatment of hESCs during EB development with a combination of cytokines and bone morphogenetic protein-4 (BMP-4), a ventral mesoderm inducer, strongly promotes hematopoietic differentiation. Hematopoietic progenitors of multiple lineages were generated from EBs and were found to be restricted to the population of progeny expressing cell surface CD45. Addition of BMP-4 had no statistically significant effect on hematopoietic differentiation but enabled significant enhancement in progenitor self-renewal, independent of cytokine treatment. Hematopoietic commitment was characterized as the temporal emergence of single CD45+ cells first detectable after day 10 of culture and was accompanied by expression of hematopoietic transcription factors. Despite the removal of cytokines at day 10, hematopoietic differentiation of hESCs continued, suggesting that cytokines act on hematopoietic precursors as opposed to differentiated hematopoietic cells. Our study establishes the first evidence for the role of cytokines and BMP-4 in promoting hematopoietic differentiation of hESC lines and provides an unprecedented system to study early developmental events that govern the initiation of hematopoiesis in the human.
REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 87 OF 104 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1999:401797 CAPLUS
DOCUMENT NUMBER: 131:43259
TITLE: Differentiation of hematopoietic stem cells by cytokines
AUTHOR(S): Nakahata, Tatsutoshi
CORPORATE SOURCE: Inst. Med. Sci., Univ. Tokyo, Japan
SOURCE: Jikken Igaku (1999), 17(9), 1092-1098
CODEN: JIIGEF; ISSN: 0288-5514
PUBLISHER: Yodosha
DOCUMENT TYPE: Journal; General Review
LANGUAGE: Japanese
AB A review with 17 refs. on deterministic model and stochastic model in differentiation of hematopoietic stem cells, and role of G-CSF receptor, GM-CSF receptor, EPO receptor, M-CSF receptor, OL-6 receptor, etc. in the

differentiation.

L3 ANSWER 100 OF 104 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1990:48410 CAPLUS
DOCUMENT NUMBER: 112:48410
TITLE: Comparative effects of busulfan, cytosine arabinoside and adriamycin on different maturation stages of normal human bone marrow cells
AUTHOR(S): Tohda, Shuji; Nagata, Kaoru; Suzuki, Toshiya; Nara, Nobuo
CORPORATE SOURCE: 1st Dep. Intern. Med., Tokyo Med. and Dent. Univ., Tokyo, Japan
SOURCE: Acta Haematologica (1989), 83(1), 16-21
CODEN: ACHAAH; ISSN: 0001-5792
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Leukemic blast progenitors in acute myeloblastic leukemia undergo terminal divisions and/or self-renewal. Busuflan (BU) is more effective against the self-renewal than against the terminal divisions. Cytosine arabinoside (Ara-C) is more effective against self-renewal and adriamycin ADR) against terminal divisions. The effects of the 3 antileukemic drugs on normal human bone marrow cells were studied and compared with their different activity against self-renewal and terminal divisions. BU and Ara-C suppressed the colony formation induced by interleukin-3 (IL-3) more effectively than that by granulocyte colony-stimulating factor (G-CSF). ADR suppressed more effectively the colonies induced by G-CSF. In normal hemopoiesis, IL-3 stimulates the growth of more primitive hemopoietic stem cells, while G-CSF stimulates the growth of granulopoiesis- committed precursors at a more differentiated stage. BU and Ara-C are therefore more effective against the immature cells in normal bone marrow and ADR is effective against the differentiated cells. Thus, the differentiation stage of target cells may explain the differences of the effects on self-renewal and terminal divisions between BU, Ara-C and ADR.

L3 ANSWER 104 OF 104 EMBASE COPYRIGHT (c) 2008 Elsevier B.V. All rights reserved on STN
ACCESSION NUMBER: 1994344460 EMBASE
TITLE: Use of G-CSF alone to mobilize peripheral blood stem cells for collection from children.
AUTHOR: Kanold, J.; Rapatel Ch.; Berger, M.; Chassagne, J.; Lutz, P.; De Lumley, L.; Plantaz, D.; Vannier, J.P.; Malpuech, G.; Demeocq, F., Dr. (correspondence)
CORPORATE SOURCE: Pediatrie B, Hotel-Dieu, Centre Hospitalier Universitaire, BP 69, 63003 Clermont-Ferrand Cedex 1, France.
SOURCE: British Journal of Haematology, (1994) Vol. 88, No. 3, pp. 633-635.
ISSN: 0007-1048 CODEN: BJHEAL
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 016 Cancer
025 Hematology
037 Drug Literature Index
007 Pediatrics and Pediatric Surgery
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 7 Dec 1994
Last Updated on STN: 7 Dec 1994
AB We report the data of 19 children with neuroblastoma (NB) or Ewing's sarcoma (EW) who had peripheral blood stem cells (PBSCs) harvested after mobilization by: (1) cyclophosphamide (CY) + etoposide + G-CSF, (2) CY + GM-CSF, or (3) G

-CSF alone, There were no consistent differences in the number of PBSCs collected following these three different mobilization regimens as assessed by CFU-GM. 17 patients were reinfused with PBSCs after myeloablative therapy and had successful haemopoietic recovery. These results show that in children with solid tumours such as NE or EW a sufficient number of PBSCs can be collected after G-CSF alone, and that PBSCs collected following stimulation by G-CSF alone are as effective in reconstituting haemopoiesis as those collected after mobilizing chemotherapy + HGFs.

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NEWS	4	JAN 28	USPATFULL, USPAT2, and USPATOLD enhanced with new custom IPC display formats
NEWS	5	JAN 28	MARPAT searching enhanced
NEWS	6	JAN 28	USGENE now provides USPTO sequence data within 3 days of publication
NEWS	7	JAN 28	TOXCENTER enhanced with reloaded MEDLINE segment
NEWS	8	JAN 28	MEDLINE and LMEDLINE reloaded with enhancements
NEWS	9	FEB 08	STN Express, Version 8.3, now available
NEWS	10	FEB 20	PCI now available as a replacement to DPCI
NEWS	11	FEB 25	IFIREF reloaded with enhancements
NEWS	12	FEB 25	IMSPRODUCT reloaded with enhancements
NEWS	13	FEB 29	WPINDEX/WPIDS/WPIX enhanced with ECLA and current U.S. National Patent Classification
NEWS	14	MAR 31	IFICDB, IFIPAT, and IFIUDB enhanced with new custom IPC display formats
NEWS	15	MAR 31	CAS REGISTRY enhanced with additional experimental spectra
NEWS	16	MAR 31	CA/CAplus and CASREACT patent number format for U.S. applications updated
NEWS	17	MAR 31	LPCI now available as a replacement to LDPCI
NEWS	18	MAR 31	EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS	19	APR 04	STN AnaVist, Version 1, to be discontinued

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                                                         ENTRY    SESSION
FULL ESTIMATED COST                                       0.21       0.21

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=> S G-CSF(S)(IL-1 inhibition)
L1            0 G-CSF(S)(IL-1 INHIBITION)

=> S G-CSF (L)(IL-1 inhibition)
L2            0 G-CSF (L)(IL-1 INHIBITION)

=> S G-CSF AND (IL-1 inhibition)
L3            0 G-CSF AND (IL-1 INHIBITION)

=> S G-CSF (L) IL-1
L4         2468 G-CSF (L) IL-1

=> L4 (L) inhibition
L4 IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> S  L4 (L) inhibition
L5          189 L4 (L) INHIBITION

=> S L5 (L) (stem cells)
L6            5 L5 (L) (STEM CELLS)

=> Dup rem L6
PROCESSING COMPLETED FOR L6
L7            2 DUP REM L6 (3 DUPLICATES REMOVED)
                ANSWER '1' FROM FILE MEDLINE
                ANSWER '2' FROM FILE BIOSIS
```

=> D Ibib L7 1,2

L7 ANSWER 1 OF 2 MEDLINE on STN DUPLICATE 1
ACCESSION NUMBER: 96028175 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7593217
TITLE: Basic fibroblast growth factor and epidermal growth factor downmodulate the growth of hematopoietic cells in long-term stromal cultures.
AUTHOR: Dooley D C; Oppenlander B K; Spurgin P; Mead J H; Novak F P; Plunkett M; Beckstead J; Heinrich M C
CORPORATE SOURCE: Pacific Northwest Regional Blood Services, American Red Cross, Portland, Oregon 97208, USA.
CONTRACT NUMBER: CA36306 (United States NCI)
DK40566 (United States NIDDK)
DK41933 (United States NIDDK)
SOURCE: Journal of cellular physiology, (1995 Nov) Vol. 165, No. 2, pp. 386-97.
Journal code: 0050222. ISSN: 0021-9541.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
(RESEARCH SUPPORT, U.S. GOV'T, NON-P.H.S.)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199512
ENTRY DATE: Entered STN: 24 Jan 1996
Last Updated on STN: 3 Mar 2000
Entered Medline: 5 Dec 1995

L7 ANSWER 2 OF 2 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 2004:154912 BIOSIS
DOCUMENT NUMBER: PREV200400148434
TITLE: In vitro "trans-stromal" migration of hematopoietic cells is increased after G-CSF-stimulation of human stromal cells.
AUTHOR(S): Lopez, Adriana [Reprint Author]; Carion, Alexandra [Reprint Author]; Olivier, Herault [Reprint Author]; Christian, Binet [Reprint Author]; Pierre, Charbord [Reprint Author]; Jorge, Domenech [Reprint Author]
CORPORATE SOURCE: Laboratory of Hematopoiesis, Faculty of Medicine, EA3249, Tours Cedex, France
SOURCE: Blood, (November 16 2003) Vol. 102, No. 11, pp. 837a-838a. print.
Meeting Info.: 45th Annual Meeting of the American Society of Hematology. San Diego, CA, USA. December 06-09, 2003. American Society of Hematology.
CODEN: BLOOAW. ISSN: 0006-4971.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
Conference; (Meeting Poster)
LANGUAGE: English
ENTRY DATE: Entered STN: 17 Mar 2004
Last Updated on STN: 17 Mar 2004

=> FIL STNGUIDE

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	56.10	56.31

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FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Apr 11, 2008 (20080411/UP).

=> Dup rem L5
COST IN U.S. DOLLARS

	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.24	56.55

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FILE 'BIOSIS' ENTERED AT 12:58:36 ON 13 APR 2008
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PROCESSING COMPLETED FOR L5
L8 69 DUP REM L5 (120 DUPLICATES REMOVED)
ANSWERS '1-46' FROM FILE MEDLINE
ANSWERS '47-55' FROM FILE BIOSIS
ANSWERS '56-68' FROM FILE CAPLUS
ANSWER '69' FROM FILE EMBASE

=> D Ti L8 1-69

L8 ANSWER 1 OF 69 MEDLINE on STN DUPLICATE 3
TI Expression profiles of genes involved in the mouse nuclear factor-kappa B signal transduction pathway are modulated by mangiferin.

L8 ANSWER 2 OF 69 MEDLINE on STN DUPLICATE 4
TI Granulocyte colony-stimulating factor (G-CSF) reduces not only gram-negative but also gram-positive infection-associated proinflammatory cytokine release by interaction between Kupffer cells and leukocytes.

L8 ANSWER 3 OF 69 MEDLINE on STN DUPLICATE 6
TI Production of granulocyte colony-stimulating factor in the nonspecific acute phase response enhances host resistance to bacterial infection.

L8 ANSWER 4 OF 69 MEDLINE on STN DUPLICATE 9
TI Role of p38 mitogen-activated protein kinase in rhinovirus-induced cytokine production by bronchial epithelial cells.

L8 ANSWER 5 OF 69 MEDLINE on STN DUPLICATE 11
TI Cytokine-mediated regulation of granulocyte colony-stimulating factor production.

L8 ANSWER 6 OF 69 MEDLINE on STN DUPLICATE 12
TI IL-1beta mediates diethyldithiocarbamate-induced granulocyte colony-stimulating factor production and hematopoiesis.

L8 ANSWER 7 OF 69 MEDLINE on STN DUPLICATE 13
TI Mediator-dependent effects of pentoxifylline on endothelium for transmigration of neutrophils.

L8 ANSWER 8 OF 69 MEDLINE on STN DUPLICATE 14
TI Inhibition of neutrophil apoptosis and modulation of the inflammatory response by granulocyte colony-stimulating factor in healthy and ethanol-treated human volunteers.

L8 ANSWER 9 OF 69 MEDLINE on STN DUPLICATE 15
TI Induction of hepatocyte growth factor/scatter factor by interferon-gamma in human leukemia cells.

L8 ANSWER 10 OF 69 MEDLINE on STN DUPLICATE 16
TI An inhibitor of ornithine decarboxylase antagonizes superoxide generation by primed human polymorphonuclear leukocytes.

L8 ANSWER 11 OF 69 MEDLINE on STN DUPLICATE 17
TI Cytokine-mediated antitumor effect of OK-432 on urinary bladder tumor cells in vitro.

L8 ANSWER 12 OF 69 MEDLINE on STN DUPLICATE 18
TI Raf-1 protein is required for growth factor-induced proliferation of primitive hematopoietic progenitors stimulated with synergistic combinations of cytokines.

L8 ANSWER 13 OF 69 MEDLINE on STN DUPLICATE 19
TI Oncostatin M inhibits IL-1-induced expression of IL-8 and granulocyte-macrophage colony-stimulating factor by synovial and lung fibroblasts.

L8 ANSWER 14 OF 69 MEDLINE on STN DUPLICATE 20
TI BMEC-1: a human bone marrow microvascular endothelial cell line with primary cell characteristics.

L8 ANSWER 15 OF 69 MEDLINE on STN DUPLICATE 21
TI Granulocyte colony-stimulating factor (G-CSF) increases neutrophil migration across vascular endothelium independent of an effect on adhesion: comparison with granulocyte-macrophage colony-stimulating factor (GM-CSF).

L8 ANSWER 16 OF 69 MEDLINE on STN DUPLICATE 22
TI Endogenous IL-6 and IL-10 contribute to the differentiation of CD40-activated human B lymphocytes.

L8 ANSWER 17 OF 69 MEDLINE on STN DUPLICATE 23
TI Effects of interleukin 10 on blast cells derived from patients with acute myelogenous leukemia.

L8 ANSWER 18 OF 69 MEDLINE on STN DUPLICATE 24
TI Comparison of the inhibitory effect of AcSDKP, TNF-alpha, TGF-beta, and MIP-1 alpha on marrow-purified CD34+ progenitors.

L8 ANSWER 19 OF 69 MEDLINE on STN DUPLICATE 25
TI Basic fibroblast growth factor and epidermal growth factor downmodulate the growth of hematopoietic cells in long-term stromal cultures.

L8 ANSWER 20 OF 69 MEDLINE on STN DUPLICATE 26
TI Divergent effects of IL-10 and IL-4 on the proliferation and growth factor secretion by acute myeloblastic leukemic cells.

L8 ANSWER 21 OF 69 MEDLINE on STN DUPLICATE 27
TI Regulation of cytokine expression by interferon-alpha in human bone marrow stromal cells: inhibition of hematopoietic growth factors and induction of interleukin-1 receptor antagonist.

L8 ANSWER 22 OF 69 MEDLINE on STN DUPLICATE 28
TI Granulocyte colony-stimulating factor (CSF) but not interleukin-1 (IL-1), IL-3, and granulocyte-macrophage CSF protect bone marrow progenitor cells from suppression by allosensitized cytotoxic T cells.

L8 ANSWER 23 OF 69 MEDLINE on STN DUPLICATE 29
TI Bone marrow adherent layers inhibit apoptosis of acute myeloid leukemia cells.

L8 ANSWER 24 OF 69 MEDLINE on STN DUPLICATE 30
TI The growth response of Lin-Thy-1+ hematopoietic progenitors to cytokines is determined by the balance between synergy of multiple stimulators and negative cooperation of multiple inhibitors.

L8 ANSWER 25 OF 69 MEDLINE on STN DUPLICATE 31
TI Vesnarinone, a new inotropic agent, inhibits cytokine production by stimulated human blood from patients with heart failure.

L8 ANSWER 26 OF 69 MEDLINE on STN DUPLICATE 32
TI Experimental basis of cancer combination chemotherapy with retinoids, cytokines, 1,25-dihydroxyvitamin D3, and analogs.

L8 ANSWER 27 OF 69 MEDLINE on STN DUPLICATE 33
TI Discordant adaptation of human peritoneal macrophages to stimulation by lipopolysaccharide and the synthetic lipid A analogue SDZ MRL 953. Down-regulation of TNF-alpha and IL-6 is paralleled by an up-regulation of IL-1 beta and granulocyte colony-stimulating factor expression.

L8 ANSWER 28 OF 69 MEDLINE on STN DUPLICATE 34
TI Regulation of neutrophil-derived IL-8: the role of prostaglandin E2, dexamethasone, and IL-4.

L8 ANSWER 29 OF 69 MEDLINE on STN DUPLICATE 35
TI Growth factors controlling interleukin-4 action on hematopoietic progenitors.

L8 ANSWER 30 OF 69 MEDLINE on STN DUPLICATE 36
TI Suppression of chronic myelogenous leukemia colony growth by interleukin-4.

L8 ANSWER 31 OF 69 MEDLINE on STN DUPLICATE 37
TI Regression of an established tumor genetically modified to release granulocyte colony-stimulating factor requires granulocyte-T cell cooperation and T cell-produced interferon gamma.

L8 ANSWER 32 OF 69 MEDLINE on STN DUPLICATE 38
TI Reversible inhibitory effects and absence of toxicity of the tetrapeptide acetyl-N-Ser-Asp-Lys-Pro (AcSDKP) in human long-term bone marrow culture.

L8 ANSWER 33 OF 69 MEDLINE on STN DUPLICATE 39
TI Specific repression of granulocyte-macrophage and granulocyte colony-stimulating factor gene expression in interleukin-1-stimulated endothelial cells with antisense oligodeoxynucleotides.

L8 ANSWER 34 OF 69 MEDLINE on STN DUPLICATE 40
TI Dexamethasone inhibits tumor necrosis factor-induced granulocyte colony-stimulating factor production in human endothelial cells.

L8 ANSWER 35 OF 69 MEDLINE on STN DUPLICATE 41
TI Inhibition of proliferation by retinoids, cytokines and their combination in four human transformed epithelial cell lines.

L8 ANSWER 36 OF 69 MEDLINE on STN DUPLICATE 42
TI IL-1, IL-4, and IFN-gamma differentially regulate cytokine production and cell surface molecule expression in cultured human thymic epithelial cells.

L8 ANSWER 37 OF 69 MEDLINE on STN DUPLICATE 43
TI The role of monocyte-derived hemopoietic growth factors in the regulation of myeloproliferation in juvenile chronic myelogenous leukemia.

L8 ANSWER 38 OF 69 MEDLINE on STN DUPLICATE 44
TI Growth regulation of the AML-193 leukemic cell line: evidence for autocrine production of granulocyte-macrophage colony-stimulating factor (GM-CSF), and inhibition of GM-CSF-dependent cell proliferation by interleukin-1 (IL-1) and tumor necrosis factor (TNF alpha).

L8 ANSWER 39 OF 69 MEDLINE on STN DUPLICATE 45
TI Human small-cell lung-cancer cells are cytokine-resistant but NK/LAK-sensitive.

L8 ANSWER 40 OF 69 MEDLINE on STN DUPLICATE 46
TI Hematologic effects of interleukin-1 beta, granulocyte colony-stimulating factor, and granulocyte-macrophage colony-stimulating factor in tumor-bearing mice treated with fluorouracil.

L8 ANSWER 41 OF 69 MEDLINE on STN DUPLICATE 47
TI Effect of cytokines on Japanese encephalitis virus production by human monocytes.

L8 ANSWER 42 OF 69 MEDLINE on STN DUPLICATE 48
TI Mechanism of action of interleukin 1 on the progenitors of blast cells in acute myeloblastic leukemia.

L8 ANSWER 43 OF 69 MEDLINE on STN DUPLICATE 49
TI Granulocyte-macrophage colony-stimulating factor is an endogenous regulator of cell proliferation in juvenile chronic myelogenous leukemia.

L8 ANSWER 44 OF 69 MEDLINE on STN DUPLICATE 50
TI Stimulation by tumor necrosis factor of HL-60 thymidine salvage pathway metabolism dissociated from proliferation.

L8 ANSWER 45 OF 69 MEDLINE on STN
TI Morphine reduces local cytokine expression and neutrophil infiltration after incision.

L8 ANSWER 46 OF 69 MEDLINE on STN
TI Influence of interferon-alpha on cytokine expression by the bone marrow microenvironment--impact on treatment of myeloproliferative disorders.

L8 ANSWER 47 OF 69 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN DUPLICATE 1
TI Granulocyte colony-stimulating factor impairs River regeneration in mice through the up-regulation of interleukin-1 beta.

L8 ANSWER 48 OF 69 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN DUPLICATE 2
TI Morphine reduces local cytokine expression and neutrophil infiltration after incision.

L8 ANSWER 49 OF 69 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI G-CSF is a pathogenic mediator of inflammatory arthritis in mice.

L8 ANSWER 50 OF 69 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI G-CSF-stimulation of human marrow stromal cells induces in vitro migration of hematopoietic progenitor cells involving MMP-2 and MMP-9 but not MMP-1.

L8 ANSWER 51 OF 69 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI In vitro "trans-stromal" migration of hematopoietic cells is increased after G-CSF-stimulation of human stromal cells.

L8 ANSWER 52 OF 69 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI Human marrow stromal cells suppress growth factor-dependent proliferation of TF-1 erythroleukemic cells by a TGF-independent mechanism.

L8 ANSWER 53 OF 69 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI Apoptosis and its role in tumor growth.

L8 ANSWER 54 OF 69 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI Differential effects of the bicyclic imidazoles on cytokine biosynthesis in human monocytes and endothelial cells.

L8 ANSWER 55 OF 69 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI EFFECTS OF RECOMBINANT HUMAN ERYTHROPOIETIN ON CLONOGENIC GROWTH OF PRIMARY HUMAN TUMOR SPECIMENS IN-VITRO.

L8 ANSWER 56 OF 69 CAPLUS COPYRIGHT 2008 ACS on STN DUPLICATE 5
TI Granulocyte colony-stimulating factor attenuates LPS-stimulated IL-1β release via suppressed processing of proIL-1β, whereas TNF-α release is inhibited on the level of proTNF-α formation

L8 ANSWER 57 OF 69 CAPLUS COPYRIGHT 2008 ACS on STN DUPLICATE 7
TI Induction of CD69 activation molecule on human neutrophils by GM-CSF, IFN-γ, and IFN-α

L8 ANSWER 58 OF 69 CAPLUS COPYRIGHT 2008 ACS on STN DUPLICATE 8
TI Tumor-derived granulocyte-macrophage colony-stimulating factor and granulocyte colony-stimulating factor prolong the survival of neutrophils infiltrating bronchoalveolar subtype pulmonary adenocarcinoma

L8 ANSWER 59 OF 69 CAPLUS COPYRIGHT 2008 ACS on STN DUPLICATE 10
TI Human monocytes express functional receptors for granulocyte colony-stimulating factor that mediate suppression of monokines and interferon-γ

L8 ANSWER 60 OF 69 CAPLUS COPYRIGHT 2008 ACS on STN
TI Inhibition of glutamate and IL-1β release by rhG-CSF after cerebral ischemic stroke in rats

L8 ANSWER 61 OF 69 CAPLUS COPYRIGHT 2008 ACS on STN
TI Cyclooxygenase-2 inhibitor NS-398 suppresses cell growth and constitutive production of granulocyte-colony stimulating factor and granulocyte macrophage-colony stimulating factor in lung cancer cells

L8 ANSWER 62 OF 69 CAPLUS COPYRIGHT 2008 ACS on STN
TI Bestatin

L8 ANSWER 63 OF 69 CAPLUS COPYRIGHT 2008 ACS on STN
TI NF-κB activation inhibitors containing lignans and their uses

L8 ANSWER 64 OF 69 CAPLUS COPYRIGHT 2008 ACS on STN
TI Cyclic stretch upregulates production of interleukin-8 and monocyte chemotactic and activating factor/monocyte chemoattractant protein-1 in human endothelial cells

L8 ANSWER 65 OF 69 CAPLUS COPYRIGHT 2008 ACS on STN
TI Histamine-forming enzyme and gastric ulcer

L8 ANSWER 66 OF 69 CAPLUS COPYRIGHT 2008 ACS on STN
TI Differential regulation of metalloelastase activity in murine peritoneal macrophages by granulocyte-macrophage colony-stimulating factor and macrophage colony-stimulating factor

L8 ANSWER 67 OF 69 CAPLUS COPYRIGHT 2008 ACS on STN
TI Up-regulation of neutral endopeptidase (CALLA) in human neutrophils by granulocyte-macrophage colony-stimulating factor

L8 ANSWER 68 OF 69 CAPLUS COPYRIGHT 2008 ACS on STN
TI Effects of recombinant human erythropoietin on clonogenic growth of primary human tumor specimens in vitro

L8 ANSWER 69 OF 69 EMBASE COPYRIGHT (c) 2008 Elsevier B.V. All rights reserved on STN
TI Differential effects of the bicyclic imidazoles on cytokine biosynthesis in human monocytes and endothelial cells.

=> S L8 AND pd<=20040415
2 FILES SEARCHED...
L9 63 L8 AND PD<=20040415

=> D Ti L9 1-63

L9 ANSWER 1 OF 63 MEDLINE on STN
TI Expression profiles of genes involved in the mouse nuclear factor-kappa B signal transduction pathway are modulated by mangiferin.

L9 ANSWER 2 OF 63 MEDLINE on STN
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L9 ANSWER 3 OF 63 MEDLINE on STN
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L9 ANSWER 5 OF 63 MEDLINE on STN
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L9 ANSWER 6 OF 63 MEDLINE on STN
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L9 ANSWER 7 OF 63 MEDLINE on STN
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L9 ANSWER 8 OF 63 MEDLINE on STN
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L9 ANSWER 17 OF 63 MEDLINE on STN
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L9 ANSWER 18 OF 63 MEDLINE on STN
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L9 ANSWER 23 OF 63 MEDLINE on STN
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L9 ANSWER 24 OF 63 MEDLINE on STN
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L9 ANSWER 30 OF 63 MEDLINE on STN
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L9 ANSWER 46 OF 63 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
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L9 ANSWER 47 OF 63 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
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L9 ANSWER 48 OF 63 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI Apoptosis and its role in tumor growth.

L9 ANSWER 49 OF 63 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI Differential effects of the bicyclic imidazoles on cytokine biosynthesis

in human monocytes and endothelial cells.

L9 ANSWER 50 OF 63 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI EFFECTS OF RECOMBINANT HUMAN ERYTHROPOIETIN ON CLONOGENIC GROWTH OF PRIMARY HUMAN TUMOR SPECIMENS IN-VITRO.

L9 ANSWER 51 OF 63 CAPLUS COPYRIGHT 2008 ACS on STN
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L9 ANSWER 52 OF 63 CAPLUS COPYRIGHT 2008 ACS on STN
TI Induction of CD69 activation molecule on human neutrophils by GM-CSF, IFN-γ, and IFN-α

L9 ANSWER 53 OF 63 CAPLUS COPYRIGHT 2008 ACS on STN
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L9 ANSWER 54 OF 63 CAPLUS COPYRIGHT 2008 ACS on STN
TI Bestatin

L9 ANSWER 55 OF 63 CAPLUS COPYRIGHT 2008 ACS on STN
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L9 ANSWER 56 OF 63 CAPLUS COPYRIGHT 2008 ACS on STN
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L9 ANSWER 57 OF 63 CAPLUS COPYRIGHT 2008 ACS on STN
TI Histamine-forming enzyme and gastric ulcer

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L9 ANSWER 61 OF 63 CAPLUS COPYRIGHT 2008 ACS on STN
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L9 ANSWER 63 OF 63 EMBASE COPYRIGHT (c) 2008 Elsevier B.V. All rights reserved on STN
TI Differential effects of the bicyclic imidazoles on cytokine biosynthesis in human monocytes and endothelial cells.

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PASSWORD:
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AT 13:12:36 ON 13 APR 2008
FILE 'MEDLINE' ENTERED AT 13:12:36 ON 13 APR 2008
FILE 'BIOSIS' ENTERED AT 13:12:36 ON 13 APR 2008
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COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                        ENTRY    SESSION
FULL ESTIMATED COST                                     14.95      71.50

=> D Hist

     (FILE 'HOME' ENTERED AT 12:49:58 ON 13 APR 2008)

     FILE 'MEDLINE, BIOSIS, CAPLUS, EMBASE' ENTERED AT 12:50:29 ON 13 APR 2008
L1             0 S G-CSF(S)(IL-1 INHIBITION)
L2             0 S G-CSF (L)(IL-1 INHIBITION)
L3             0 S G-CSF AND (IL-1 INHIBITION)
L4          2468 S G-CSF (L) IL-1
L5           189 S  L4 (L) INHIBITION
L6             5 S L5 (L) (STEM CELLS)
L7             2 DUP REM L6 (3 DUPLICATES REMOVED)

     FILE 'STNGUIDE' ENTERED AT 12:56:30 ON 13 APR 2008

     FILE 'MEDLINE, BIOSIS, CAPLUS, EMBASE' ENTERED AT 12:58:36 ON 13 APR 2008
L8            69 DUP REM L5 (120 DUPLICATES REMOVED)
L9            63 S L8 AND PD<=20040415

=> D Ibib Abs L9 2,5,6,8,9,13,16,17,19,22,23,26,29,34,37,40,42,43,44,47,50,53,56,63

L9   ANSWER 2 OF 63     MEDLINE on STN
ACCESSION NUMBER:   2004207493     MEDLINE
DOCUMENT NUMBER:    PubMed ID: 15105970
TITLE:              Granulocyte colony-stimulating factor (G-CSF) reduces not
                    only gram-negative but also gram-positive
                    infection-associated proinflammatory cytokine release by
                    interaction between Kupffer cells and leukocytes.
AUTHOR:             Busch C J; Wanner G A; Menger M D; Vollmar B
CORPORATE SOURCE:   Department of Anesthesiology, University of Heidelberg,
                    Heidelberg, Germany.
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SOURCE: Inflammation research : official journal of the European Histamine Research Society ... [et al.], (2004 May) Vol. 53, No. 5, pp. 205-10. Electronic Publication: 2004-04-21.
Journal code: 9508160. ISSN: 1023-3830.
PUB. COUNTRY: Switzerland
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200504
ENTRY DATE: Entered STN: 24 Apr 2004
Last Updated on STN: 14 Apr 2005
Entered Medline: 13 Apr 2005

AB OBJECTIVE AND DESIGN: An important principle for the beneficial effects of granulocyte colony-stimulating factor (G-CSF), a central mediator in the endogenous host response, is the reduction of systemic cytokine levels in various gram-negative models of sepsis and septic shock. There is debate, however, on whether G-CSF is protective also in gram-positive sepsis and acts directly or indirectly on macrophages and hepatic Kupffer cells (KC). METHODS: KC were harvested from either G-CSF-(200 microg/kg bw i.v.) or saline-pretreated Sprague-Dawley rats and stimulated in vitro for subsequent assessment of cytokine release over 24 h. RESULTS: Pretreatment with G-CSF led to a significant ($p<0.05$) inhibition of lipopolysaccharide (LPS)-induced release of TNF-alpha (-81%), IL-6 (-82%) and IL-1 beta (-57%). Exposure of KC to heat-killed Staphylococcus aureus (S. aureus/SAC) caused a 2- to 3-fold higher TNF-alpha release, but similar IL-6 levels when compared with those after LPS stimulation. Still, G-CSF proved to significantly reduce the release of both TNF-alpha and IL-6 upon KC exposure with SAC for 24h. Interestingly, in neutropenic animals (100mg/kg cyclophosphamide), G-CSF was not capable to blunt the LPS-induced cytokine release, indicating that the action of G-CSF on KC is not direct in nature but targets cellular communication and function of neutrophils. CONCLUSIONS: The present results demonstrate that pretreatment with G-CSF in vivo effectively prevents the overactivation of KC by both gram-negative and gram-positive bacterial substances, probably via modulation of neutrophil function. Thus, inhibition of proinflammatory cytokine response through G-CSF may represent a promising hepatoprotective approach during systemic inflammation.

L9 ANSWER 5 OF 63 MEDLINE on STN
ACCESSION NUMBER: 2000032389 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10564547
TITLE: Cytokine-mediated regulation of granulocyte colony-stimulating factor production.
AUTHOR: Hannen M; Banning U; Bonig H; Kim Y M; Shin D I; Lorenz I; Seeger K; Korholz D
CORPORATE SOURCE: Department of Pediatric Hematology and Oncology, Center of Child Health, Heinrich-Heine-University Dusseldorf Medical Center, Germany.
SOURCE: Scandinavian journal of immunology, (1999 Nov) Vol. 50, No. 5, pp. 461-8.
Journal code: 0323767. ISSN: 0300-9475.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: (IN VITRO)
Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals

ENTRY MONTH: 199912
ENTRY DATE: Entered STN: 13 Jan 2000
Last Updated on STN: 13 Jan 2000
Entered Medline: 6 Dec 1999

AB Granulocyte colony-stimulating factor (G-CSF) is an important regulator of granulopoiesis and an inducer of T helper 2 (Th2)-related cytokines. In this study we investigated the mechanism of cytokine-modulated G-CSF production in lipopolysaccharide (LPS)-stimulated peripheral blood mononuclear cells (PBMC) and bone marrow stromal cells (BMSC). In PBMC, LPS significantly induced G-CSF and interleukin (IL)-1 , an inducer of G-CSF. Both were partly inhibited by IL-4, IL-6 and IL-10. None of these effects were the result of altered monocyte activation or proliferation. The effects of IL-4 and IL-10 appeared to be independent of IL-1 suppression or IL-1 receptor antagonist (IL-1ra) induction, but rather seemed to involve a blockade of IL-1 function, in addition to a blockade of IL-1-independent stimulatory effects on G-CSF production. The effect of the IL-6-induced suppression of G-CSF production differed from that of IL-4 and IL-10 in that it was much less pronounced and could be partially overridden by addition of functional IL-1 , yet it also appeared to involve the interference with IL-1 function and the suppression of IL-1 -independent mechanisms. In BMSC, G-CSF synthesis was regulated differently. Here, IL-1 was the main stimulator of G-CSF release, and the effect of IL-1 was neither affected by IL-10 nor IL-6, while IL-4 had a stimulatory effect. Thus, G-CSF production was found to be differently regulated in distinct cellular compartments, and a cross-regulation between these might be facilitated by IL-4-, IL-6- and IL-10-induced inhibition of IL-1. These results could be important for the understanding of G-CSF production in neutropenic patients during severe infection.

L9 ANSWER 6 OF 63 MEDLINE on STN
ACCESSION NUMBER: 1999151616 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10029158
TITLE: IL-1beta mediates diethyldithiocarbamate-induced granulocyte colony-stimulating factor production and hematopoiesis.
AUTHOR: Kennedy S M; Borch R F
CORPORATE SOURCE: Department of Pharmacology and Physiology, University of Rochester, NY, USA.
CONTRACT NUMBER: CA34620 (United States NCI)
GM08427 (United States NIGMS)
SOURCE: Experimental hematology, (1999 Feb) Vol. 27, No. 2, pp. 210-6.
Journal code: 0402313. ISSN: 0301-472X.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199903
ENTRY DATE: Entered STN: 24 Mar 1999
Last Updated on STN: 24 Mar 1999
Entered Medline: 11 Mar 1999

AB Diethyldithiocarbamate (DDTC) exhibits chemoprotective effects via reduced myelosuppression in mice treated with various chemotherapeutic agents. The mechanism of DDTC-mediated chemoprotection is believed to involve the induction and release of several cytokines, including interleukin-1 beta

(IL-1beta), tumor necrosis factor-alpha (TNF-alpha), and granulocyte colony-stimulating factor (G-CSF). In the present study the roles of IL-1beta and TNF-alpha in DDTC-mediated G-CSF induction were examined using human long-term bone marrow cultures (hLTBMCs). Administration of IL-1 receptor antagonist (IL-1ra) to DDTC-treated hLTBMCs obviated the G-CSF induction profile and blocked the resultant colony proliferation, indicating that IL-1beta mediates DDTC-induced G-CSF release and hematopoiesis. IL-1beta mRNA levels were increased threefold over control following DDTC treatment of hLTBMCs, implying that DDTC induces IL-1beta at the level of transcription. Conversely, studies involving inhibition of DDTC-induced TNF-alpha synthesis, with the inhibitor MNX 160, had no effect on DDTC-induced G-CSF release or colony proliferation. These findings taken together strongly suggest that IL-1beta mediates the chemoprotective effects of DDTC.

L9 ANSWER 8 OF 63 MEDLINE on STN
ACCESSION NUMBER: 1998396739 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9728567
TITLE: Inhibition of neutrophil apoptosis and modulation of the inflammatory response by granulocyte colony-stimulating factor in healthy and ethanol-treated human volunteers.
AUTHOR: Dalhoff K; Hansen F; Dromann D; Schaaf B; Aries S P; Braun J
CORPORATE SOURCE: II. Department of Medicine, Medical University Lubeck, Germany.
SOURCE: The Journal of infectious diseases, (1998 Sep) Vol. 178, No. 3, pp. 891-5. Journal code: 0413675. ISSN: 0022-1899.
PUB. COUNTRY: United States
DOCUMENT TYPE: (CLINICAL TRIAL) Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 199809
ENTRY DATE: Entered STN: 8 Oct 1998 Last Updated on STN: 8 Oct 1998 Entered Medline: 29 Sep 1998
AB Granulocyte colony-stimulating factor (G-CSF) has immunomodulating properties that could be beneficial for adjunctive treatment of severe infections. Cytokine release from stimulated whole blood and expression of neutrophil surface and apoptosis markers in response to G-CSF were studied in human volunteers under physiologic conditions and after ethanol pretreatment. Levels of interleukin (IL)-1 receptor antagonist and soluble tumor necrosis factor (TNF) receptor-1 were significantly increased after G-CSF, whereas TNF-alpha and IL-10 concentrations were reduced, and IL-1beta and IL-8 remained unchanged. There was a significant inhibition of neutrophil apoptosis and increased expression of complement regulatory protein CD55 without changes in CD11b, CD14, and CD59 expression. These effects were well preserved after ethanol pretreatment, which per se led to an increase in apoptosis and decreased CD55 expression. Thus, G-CSF treatment was associated with a reduction of the proinflammatory cytokine response and enhanced neutrophil survival in vivo, suggesting a therapeutic potential of G-CSF for severe infections in the nonneutropenic host.

L9 ANSWER 9 OF 63 MEDLINE on STN
ACCESSION NUMBER: 1998059310 MEDLINE

DOCUMENT NUMBER: PubMed ID: 9397161
TITLE: Induction of hepatocyte growth factor/scatter factor by interferon-gamma in human leukemia cells.
AUTHOR: Gohda E; Takebe T; Sotani T; Nakamura S; Minowada J; Yamamoto I
CORPORATE SOURCE: Department of Immunochemistry, Faculty of Pharmaceutical Sciences, Okayama University, Japan.. gohda@pheasant.pharm.okayama-u.ac.jp
SOURCE: Journal of cellular physiology, (1998 Jan) Vol. 174, No. 1, pp. 107-14.
Journal code: 0050222. ISSN: 0021-9541.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199712
ENTRY DATE: Entered STN: 16 Jan 1998
Last Updated on STN: 16 Jan 1998
Entered Medline: 30 Dec 1997

AB Induction of hepatocyte growth factor/scatter factor (HGF/SF) may be one of the critical steps in organ regeneration, wound healing, and embryogenesis. We previously reported the production of HGF/SF from various human leukemia cell lines and a high level of the growth factor in blood and bone marrow plasma from patients with various types of leukemia. We determined here the effects of hematopoietic cytokines on HGF/SF production in human leukemia cell lines, KG-1, a myeloid cell line, and RPMI-8226, a B cell line. Interferon (IFN)-gamma remarkably stimulated HGF/SF production in both cell lines at concentrations of more than 0.1 or 1 IU/ml. IFN-alpha and IFN-beta were as effective as IFN-gamma in RPMI-8226 cells, but less than IFN-gamma in KG-1 cells. HGF/SF gene expression in KG-1 cells was also up-regulated by IFN-gamma. Granulocyte colony-stimulating factor (G-CSF), granulocyte/macrophage colony-stimulating factor (GM-CSF), interleukin (IL)-5 and IL-6 had no effect on HGF/SF production in the 2 leukemia cell lines. We also determined the effects of HGF/SF inducers known for human fibroblasts on the growth factor production in leukemia cells. Out of phorbol 12-myristate 13-acetate (PMA), cholera toxin, IL-1 beta, and tumor necrosis factor (TNF)-alpha, the former three were as effective as IFN-gamma in KG-1 cells, but only TNF-alpha stimulated HGF/SF production in RPMI-8226 cells, whose effect was less than those of IFN-alpha, IFN-beta, and IFN-gamma. The effect of IFN-gamma in KG-1 cells was synergistic with that of PMA. In contrast with the effect in leukemia cells, HGF/SF induction by IFN-gamma in human skin fibroblasts was much less than that by PMA or cholera toxin. These results indicated that IFN-gamma is a potent inducer of HGF/SF in human leukemia cells. This finding suggests the presence of a homeostatic control mechanism in liver regeneration and repair: hepatic injury, DNA synthesis inhibition, or apoptosis caused by IFN-gamma is subsequently overcome by cytokine-induced HGF/SF, a potent promoter of liver DNA synthesis.

L9 ANSWER 13 OF 63 MEDLINE on STN
ACCESSION NUMBER: 97123729 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8954864
TITLE: BMEC-1: a human bone marrow microvascular endothelial cell line with primary cell characteristics.
AUTHOR: Candal F J; Rafii S; Parker J T; Ades E W; Ferris B; Nachman R L; Kellar K L
CORPORATE SOURCE: Biological Products Branch, Scientific Resources Program, National Center for Infectious Diseases, Centers for Disease Control and Prevention, Atlanta, Georgia 30333,

USA.
CONTRACT NUMBER: K08-HL02926 (United States NHLBI)
SOURCE: Microvascular research, (1996 Nov) Vol. 52, No. 3, pp. 221-34.
Journal code: 0165035. ISSN: 0026-2862.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199703
ENTRY DATE: Entered STN: 27 Mar 1997
Last Updated on STN: 27 Mar 1997
Entered Medline: 19 Mar 1997

AB Bone marrow microvascular endothelial cells (BMEC) are a functional component of the bone marrow stroma and have been shown to release hematopoietic regulatory factors as well as to selectively adhere and support the proliferation and differentiation of CD34+ hematopoietic progenitors. An early passage of these cells was immortalized by transfection with a vector (pSVT) encoding the large T antigen of SV40. The transformed cell line (CDC/CU.BMEC-1) expresses the SV40 transcript, retains the primary cell expression of Ulex europeaus and vWF/ FVIII, and incorporates acetylated low-density lipoprotein. In addition, BMEC-1 mirrors the phenotype of the primary cells with only a few exceptions. Both cell populations express the cellular adhesion molecules ICAM-1 and PECAM and also VCAM-1 and ELAM-1 after upregulation by tumor necrosis factor-alpha. The fibronectin receptor, hyaluronate receptor, collagen receptor, integrins VLA-alpha 3, VLA-alpha 4, and beta 4, endoglin, collagen IV, CD58, and CD61 are also expressed. The only differences are that BMEC-1 expresses higher levels of ICAM-1, CD58, CD34, CD36, and c-kit than the primary cells. The supernatants of primary cell and BMEC-1 contain stem cell factor, interleukin-6 (IL-6), granulocyte-macrophage colony-stimulating factor (GM-CSF), IL-1 alpha, IL-11, and G-CSF. The functional significance of these hematopoietic cytokines was demonstrated in transwell cultures. Both cell populations supported the expansion of progeny from CD34+ cell-enriched cord blood mononuclear cells suspended in the upper chamber. These characteristics, plus the fact that BMEC-1 can be maintained independently of exogenous growth factors and exhibit contact inhibition, indicate that this cell line can be used to further define the role of BMEC in hematopoiesis.

L9 ANSWER 16 OF 63 MEDLINE on STN
ACCESSION NUMBER: 96301222 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8757506
TITLE: Granulocyte colony-stimulating factor (G-CSF) increases neutrophil migration across vascular endothelium independent of an effect on adhesion: comparison with granulocyte-macrophage colony-stimulating factor (GM-CSF).
AUTHOR: Yong K L
CORPORATE SOURCE: Department of Haematology, Royal Free Hospital, London.
SOURCE: British journal of haematology, (1996 Jul) Vol. 94, No. 1, pp. 40-7.
Journal code: 0372544. ISSN: 0007-1048.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: (COMPARATIVE STUDY)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199609
ENTRY DATE: Entered STN: 8 Oct 1996

Last Updated on STN: 8 Oct 1996
Entered Medline: 26 Sep 1996

AB Granulocyte colony-stimulating factor (G-CSF) increases neutrophil counts, and enhances and primes many neutrophil functions, implicating a role for this growth factor in host defence. This study investigated whether G-CSF is able to directly influence the transendothelial migration of neutrophils, and how such effects might be related to other effects on neutrophil adhesive properties. G-CSF, like GM-CSF, increased surface levels of the adhesive receptor, CD11b/CD18, but down-regulated L-selectin expression on neutrophils. Unlike GM-CSF, however, G-CSF had no effect on neutrophil adhesion to endothelium. Despite the lack of effect on neutrophil adhesion, G-CSF was able to produce significant enhancement of neutrophil transmigration across unstimulated endothelium in vitro. When used at an optimal concentration of 100 ng/ml, G-CSF increased neutrophil migration to 217 +/- 19% of baseline levels ($P < 0.001$, $n = 10$). This effect was similar to that previously demonstrated for GM-CSF (which increased migration to 271 +/- 40%, $P < 0.001$, $n = 12$). G-CSF-induced transmigration, like GM-CSF induced migration, was independent of concentration gradients, suggesting that these are not simply chemotactic effects. G-CSF differs from GM-CSF, however, in that although GM-CSF inhibited neutrophil migration across IL-1-activated endothelium (33 +/- 8% inhibition, $n = 6$, $P < 0.01$), G-CSF had no effect on neutrophil migration across IL-1 activated endothelium. Hence G-CSF, despite having no effect on neutrophil adhesion to endothelium, is a powerful stimulator of transmigration, and, unlike GM-CSF, does not inhibit cell movement across inflamed endothelium. These results suggest that G-CSF is able to influence neutrophil recruitment into local infective sites, and, further, that G-CSF mobilized cells would be competent to migrate into tissues in response to inflammatory stimuli.

L9 ANSWER 17 OF 63 MEDLINE on STN
ACCESSION NUMBER: 96108881 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8598483
TITLE: Oncostatin M inhibits IL-1-induced expression of IL-8 and granulocyte-macrophage colony-stimulating factor by synovial and lung fibroblasts.
AUTHOR: Richards C D; Langdon C; Botelho F; Brown T J; Agro A
CORPORATE SOURCE: Department of Pathology, McMaster University, Hamilton, Ontario, Canada.
SOURCE: Journal of immunology (Baltimore, Md. : 1950), (1996 Jan 1) Vol. 156, No. 1, pp. 343-9.
Journal code: 2985117R. ISSN: 0022-1767.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 199604
ENTRY DATE: Entered STN: 6 May 1996
Last Updated on STN: 6 May 1996
Entered Medline: 23 Apr 1996

AB The role of oncostatin M (OM) in modulating production of cytokines by connective tissue cells is largely unexplored. We have examined the effects of stimulating fibroblast cultures derived from human synovium and from normal lung with OM alone or in combination with IL-1, IL-1 alpha (or IL-1 beta) at 1 or 5 ng/ml, stimulated production of high levels of granulocyte-macrophage CSF (GM-CSF), IL-8, and IL-6 protein. At various

concentrations (0.1-50 ng/ml), OM alone failed to significantly enhance protein or mRNA levels of GM-CSF, IL-8, IL-6, or G-CSF after 18 h of stimulation. When combined with IL-1 alpha or -beta, OM caused a dose-dependent inhibition of the IL-1-induced level of IL-8 and GM-CSF protein and mRNA expression, whereas IL-6 production was simultaneously enhanced. In contrast, when IL-6 or leukemia inhibitory factor (two other cytokines that share gp130 receptor components with OM) were used in a similar fashion in combination with IL-1 alpha, neither cytokine consistently altered the IL-1-induced levels of IL-8, GM-CSF, or IL-6. In addition, only OM and not IL-6 or leukemia inhibitory factor was able to induce STAT-1 nuclear factor binding to DNA in stimulated fibroblast extracts as measured by electrophoretic mobility shift assay. These results suggest that OM can significantly alter cytokine profiles of stimulated fibroblasts and may play a unique role in modulating cytokine production by these cells at sites of inflammation.

L9 ANSWER 19 OF 63 MEDLINE on STN
ACCESSION NUMBER: 96028175 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7593217
TITLE: Basic fibroblast growth factor and epidermal growth factor downmodulate the growth of hematopoietic cells in long-term stromal cultures.
AUTHOR: Dooley D C; Oppenlander B K; Spurgin P; Mead J H; Novak F P; Plunkett M; Beckstead J; Heinrich M C
CORPORATE SOURCE: Pacific Northwest Regional Blood Services, American Red Cross, Portland, Oregon 97208, USA.
CONTRACT NUMBER: CA36306 (United States NCI)
DK40566 (United States NIDDK)
DK41933 (United States NIDDK)
SOURCE: Journal of cellular physiology, (1995 Nov) Vol. 165, No. 2, pp. 386-97.
Journal code: 0050222. ISSN: 0021-9541.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
(RESEARCH SUPPORT, U.S. GOV'T, NON-P.H.S.)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199512
ENTRY DATE: Entered STN: 24 Jan 1996
Last Updated on STN: 3 Mar 2000
Entered Medline: 5 Dec 1995

AB The bone marrow microenvironment consists of stromal cells and extracellular matrix components which act in concert to regulate the growth and differentiation of hematopoietic stem cells. There is little understanding of the mechanisms which modulate the regulatory role of stromal cells. This study examined the hypothesis that mesenchymal growth factors such as basic fibroblast growth factor (bFGF) and epidermal growth factor (EGF) modulate stromal cell activities and thereby influence the course of hematopoiesis. Both bFGF and EGF were potent mitogens for marrow stroma. However, both factors proved to be inhibitory to hematopoiesis in primary long-term marrow cultures. Inhibition was also observed when hematopoietic cells and bFGF or EGF were added to subconfluent irradiated stromal layers, demonstrating that the decline of hematopoiesis was not due to overgrowth of the stromal layer. Loss of hematopoietic support in bFGF and EGF was dose-dependent. Removal of bFGF and EGF permitted stromal layers to regain their normal capacity to support hematopoiesis. In stroma-free long-term cultures, neither factor affected CFU-GM expansion. Basic FGF slightly enhanced granulocyte-macrophage colony forming unit (CFU-GM) cloning efficiency in

short-term agarose culture. Basic FGF did not reduce the levels of interleukin-6 (IL-6), GM-CSF, or G-CSF released by steady state or IL-1-stimulated stroma. Similarly, the constitutive levels of steel factor (SF) mRNA and protein were not affected by bFGF. Basic FGF did not alter the level of TGF-beta 1 in stromal cultures. We conclude that bFGF and EGF can act as indirect negative modulators of hematopoietic growth in stromal cultures. The actual mediators of regulation, whether bound or soluble, remain to be identified.

L9 ANSWER 22 OF 63 MEDLINE on STN
ACCESSION NUMBER: 95181769 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7533177
TITLE: Endogenous IL-6 and IL-10 contribute to the differentiation of CD40-activated human B lymphocytes.
AUTHOR: Burdin N; Van Kooten C; Galibert L; Abrams J S; Wijdenes J; Banchereau J; Rousset F
CORPORATE SOURCE: Schering-Plough, Laboratory for Immunological Research, Dardilly, France.
SOURCE: Journal of immunology (Baltimore, Md. : 1950), (1995 Mar 15) Vol. 154, No. 6, pp. 2533-44.
Journal code: 2985117R. ISSN: 0022-1767.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 199504
ENTRY DATE: Entered STN: 19 Apr 1995
Last Updated on STN: 29 Jan 1996
Entered Medline: 6 Apr 1995
AB This study was initiated to explore the contribution of endogenous cytokines to CD40-induced B cell proliferation and differentiation. First, both CD40 and Ag receptor (AgR) cross-linking induced purified tonsillar human B lymphocytes to secrete the same pattern of cytokines, including IL-1 beta, IL-6, IL-10, granulocyte-macrophage-CSF, and TNF-alpha, whereas IL-1 alpha, IL-2, IL-3, IL-4, IL-5, IL-7, granulocyte (G)-CSF, or IFN-gamma were not detected. Second, cotriggering of CD40 and AgR resulted in additive secretion of both IL-6 and IL-10. Addition of IL-4 to CD40-activated B cells increased IL-6 levels but decreased IL-10 levels. In contrast, exogenous IL-10 diminished IL-6 levels. Neutralization of IL-6 and IL-10 using blocking Abs did not alter CD40-induced B cell growth. In contrast, IL-6 neutralization markedly inhibited the IL-4-induced IgE secretion (57 +/- 10%) as well as the IgG and IgM production resulting from AgR and CD40 cotriggering (49 +/- 16.5 and 29.5 +/- 4.5%, respectively). Blocking IL-10 inhibited the IgA secretion (25 +/- 2.7%) obtained after CD40 activation and the production of IgG, IgA, and IgM (24.1 +/- 5.6, 25 +/- 8, and 42 +/- 6.5%, respectively) by B lymphocytes undergoing dual ligation of CD40 Ag and AgR. Simultaneous neutralization of both endogenous IL-6 and IL-10 resulted in an increased inhibition of Ig secretion for B cells cotriggered by CD40 Ag and AgR (65-75%). Thus, endogenously produced IL-6 and IL-10 are involved in the differentiation of CD40-activated B cell.

L9 ANSWER 23 OF 63 MEDLINE on STN
ACCESSION NUMBER: 95086207 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7994029
TITLE: Regulation of cytokine expression by interferon-alpha in human bone marrow stromal cells: inhibition of hematopoietic growth factors and induction of interleukin-1 receptor antagonist.

AUTHOR: Aman M J; Keller U; Derigs G; Mohamadzadeh M; Huber C; Peschel C
CORPORATE SOURCE: Third Department of Medicine, Johannes Gutenberg University School of Medicine, Mainz, Germany.
SOURCE: Blood, (1994 Dec 15) Vol. 84, No. 12, pp. 4142-50.
Journal code: 7603509. ISSN: 0006-4971.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 199501
ENTRY DATE: Entered STN: 26 Jan 1995
Last Updated on STN: 26 Jan 1995
Entered Medline: 17 Jan 1995

AB We investigated the effects of interferon-alpha (IFN-alpha) on the expression of cytokines by human bone marrow stromal cells. Production of granulocyte-macrophage colony-stimulating factor (GM-CSF), granulocyte-CSF (G-CSF), and interleukin-1 beta (IL-1 beta) in stromal cell layers was induced by incubation with IL-1 alpha, tumor necrosis factor (TNF), or lipopolysaccharide (LPS). Addition of IFN-alpha to such stimulated cultures resulted in a strong downregulation of mRNA expression of GM-CSF and IL-1 beta. Similarly, the protein levels of GM-CSF and IL-1 beta were significantly reduced by IFN-alpha, whereas G-CSF production was only moderately inhibited. In contrast, IFN-alpha markedly stimulated the production of IL-1 receptor antagonist (IL-1RA) by stromal cells. The inhibition of cytokine expression resulted in a reduced hematopoietic activity of stromal cells, indicated by a reduced proliferation of the factor dependent cell line MO7e on IFN-alpha-treated stromal cells. In the presence of cycloheximide (CHX), IFN-alpha failed to inhibit IL-1 mRNA expression, whereas the regulation of GM-CSF and IL-1RA by IFN-alpha was not affected. Our results indicate that the myelosuppressive effects of IFN-alpha, as observed in therapeutic applications or associated with viral infections, are, in part, indirectly mediated by inhibition of the paracrine production of hematopoietic growth factors.

L9 ANSWER 26 OF 63 MEDLINE on STN
ACCESSION NUMBER: 94362241 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7521693
TITLE: Granulocyte colony-stimulating factor (CSF) but not interleukin-1 (IL-1), IL-3, and granulocyte-macrophage CSF protect bone marrow progenitor cells from suppression by allosensitized cytotoxic T cells.
AUTHOR: Gerritsen W R; O'Reilly R J
CORPORATE SOURCE: Department of Pediatrics, Memorial Sloan-Kettering Cancer Center, New York, NY.
SOURCE: Blood, (1994 Sep 15) Vol. 84, No. 6, pp. 1906-12.
Journal code: 7603509. ISSN: 0006-4971.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 199410
ENTRY DATE: Entered STN: 21 Oct 1994
Last Updated on STN: 29 Jan 1996
Entered Medline: 12 Oct 1994

AB The major immunological reactions after an allogeneic bone marrow

transplantation (BMT) are graft rejection and graft-versus-host disease (GVHD). GVHD can be prevented by T-cell depletion of the allogeneic BM graft, but the beneficial effect of T-cell depletion on the incidence of GVHD is counterbalanced by a higher incidence of graft failure. One option for the prevention of graft rejection after T-cell-depleted BM grafts is the administration of cytokines. Before applying cytokines after an allogeneic BMT, we considered it desirable to learn whether cytokines would alter the susceptibility of donor BM cells to host T cells. An in vitro assay was developed to investigate the role of the cytokines interleukin-1 (IL-1), IL-3, granulocyte colony-stimulating factor (G-CSF) and granulocyte-macrophage CSF (GM-CSF) on the interaction between allosensitized, cytotoxic-T cells (CTLs) and T-cell-depleted BM cells. CTLs primed against the BM donor suppressed the formation of colonies consisting of granulocytes and macrophages (colony-forming unit GM). Colony formation was not inhibited by CTLs sensitized against a third party. Accordingly, the number of colonies scored in cocultures with CTLs sensitized to third party antigens were designated as 0% inhibition. A 66% inhibition of colony formation was observed for untreated BM cells at an effector:target (E:T) ratio of 1:1. Pretreatment of the BM cells with the cytokines G-CSF, GM-CSF, IL-1, and IL-3 resulted in a 38% (P = .001), 53%, 66%, and 68% inhibition of colony formation, respectively, at E:T ratios of 1:1. G-CSF reduced the susceptibility of BM cells over a range from 4:1 to 1:16 (E:T ratios). GM-CSF had only significant influence at the lower E:T ratios (1:4 and 1:16). These in vitro data indicate that G-CSF could protect BM cells from killing by allosensitized CTLs and suggest that administration of these cytokines might potentially reduce the susceptibility of T-cell-depleted allogeneic BM grafts to host T-cell-mediated rejection.

L9 ANSWER 29 OF 63 MEDLINE on STN
ACCESSION NUMBER: 94107974 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7506581
TITLE: Growth factors controlling interleukin-4 action on hematopoietic progenitors.
AUTHOR: Ferrajoli A; Zipf T F; Talpaz M; Felix E A; Estrov Z
CORPORATE SOURCE: Department of Clinical Investigation, University of Texas, M.D. Anderson Cancer Center, Houston 77030.
SOURCE: Annals of hematology, (1993 Dec) Vol. 67, No. 6, pp. 277-84.
Journal code: 9107334. ISSN: 0939-5555.
PUB. COUNTRY: GERMANY: Germany, Federal Republic of
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199402
ENTRY DATE: Entered STN: 28 Feb 1994
Last Updated on STN: 29 Jan 1996
Entered Medline: 17 Feb 1994

AB We investigated the effect of interleukin-4 (IL-4) on human hematopoietic progenitors using low-density bone marrow cells from 29 hematologically normal donors. We found that IL-4 could either inhibit or stimulate cell growth, depending upon the other constituents of the culture medium. At concentrations ranging from 0.1 to 10.0 micrograms/ml, it significantly inhibited colony-forming units granulocyte-macrophage (CFU-GM) in the presence of either fetal calf serum alone, erythropoietin, leukocyte-conditioned medium prepared with phytohemagglutinin, granulocyte-macrophage colony-stimulating factor (GM-CSF), interleukin-3 (IL-3), or stem cell factor (SCF), in a dose-dependent fashion. In

contrast, IL-4 stimulated CFU-GM colony multiplication in the presence of granulocyte colony-stimulating factor (G-CSF). Similar but less significant inhibitory effects were exerted by IL-4 on burst-forming units-erythroid (BFU-E). The growth-suppressive effect of IL-4 was partially reversed by IL-1 beta, and to a lesser extent by IL-6. When tested by enzyme-linked immunosorbent assay (ELISA), IL-4 suppressed cellular IL-1 beta production, and, similar to IL-4, anti-IL-1 beta-neutralizing antibodies inhibited CFU-GM colony growth, suggesting that the inhibition of endogenous IL-1 beta is a factor in regulating the IL-4 effect. Furthermore, in the absence of exogenous growth factors, IL-4 inhibited CFU-GM colony growth when anti-G-CSF neutralizing antibodies were also present. Therefore, we tested the effect of IL-4 on G-CSF receptors and found that 6- or 24-h incubation of low-density marrow cells with 1.0 microgram/ml IL-4 resulted in up-regulation of G-CSF receptors. Taken together, these results suggest that IL-4 possesses a dual modulatory role in the hematopoietic system via interaction with various cytokines.

L9 ANSWER 34 OF 63 MEDLINE on STN
ACCESSION NUMBER: 92345595 MEDLINE
DOCUMENT NUMBER: PubMed ID: 1379083
TITLE: Specific repression of granulocyte-macrophage and granulocyte colony-stimulating factor gene expression in interleukin-1-stimulated endothelial cells with antisense oligodeoxynucleotides.
AUTHOR: Segal G M; Smith T D; Heinrich M C; Ey F S; Bagby G C Jr
CORPORATE SOURCE: Department of Medicine, Oregon Health Sciences University, Portland 97201-3098.
CONTRACT NUMBER: CA36306 (United States NCI)
DK41933 (United States NIDDK)
DK43375 (United States NIDDK)
SOURCE: Blood, (1992 Aug 1) Vol. 80, No. 3, pp. 609-16.
Journal code: 7603509. ISSN: 0006-4971.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
(RESEARCH SUPPORT, U.S. GOV'T, NON-P.H.S.)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 199208
ENTRY DATE: Entered STN: 11 Sep 1992
Last Updated on STN: 29 Jan 1996
Entered Medline: 31 Aug 1992

AB Antisense oligodeoxynucleotides (ODNs) have been used to effect the specific inhibition of cellular gene expression. We have evaluated the application of this approach to the inhibition of interleukin-1 (IL-1)-induced granulocyte-macrophage colony-stimulating factor (GM-CSF) and granulocyte colony-stimulating factor (G-CSF) expression in cultured human umbilical vein endothelial cells. Antisense ODNs or control ODNs (sense ODNs or missense ODNs containing random base substitutions) were added to cultures of endothelial cells, the cells were induced with IL-1 alpha, and the conditioned media were assayed for GM-CSF and G-CSF by quantitative bioassays and for immunoreactive GM-CSF by enzyme immunoassay. Antisense ODNs complementary to the first 15 or 18 bases of the translation start sites of GM-CSF or G-CSF mRNAs inhibited, in a concentration-dependent fashion, the IL-1-stimulated expression of the corresponding factor, but did not affect expression of the other factor. Control ODNs did not affect GM-CSF

or G-CSF expression. Exposure to a GM-CSF antisense ODN, but not a control ODN, substantially reduced cytoplasmic GM-CSF mRNA levels in IL-1-stimulated endothelial cells. Neither ODN affected levels of endothelial leukocyte adhesion molecule (ELAM)1 or glyceraldehyde-3-phosphate dehydrogenase mRNAs. We conclude that antisense ODNs complementary to the translation start sites of GM-CSF or G-CSF mRNAs inhibit expression of the corresponding factor in a sequence-specific fashion and this effect is mediated, at least in part, by reduction in the cytoplasmic level of the targeted mRNA. Moreover, IL-1-induced GM-CSF or G-CSF expression does not depend on expression of the other factor.

L9 ANSWER 37 OF 63 MEDLINE on STN
ACCESSION NUMBER: 92043765 MEDLINE
DOCUMENT NUMBER: PubMed ID: 1719090
TITLE: IL-1, IL-4, and IFN-gamma differentially regulate cytokine production and cell surface molecule expression in cultured human thymic epithelial cells.
AUTHOR: Galy A H; Spits H
CORPORATE SOURCE: DNAX Research Institute, Palo Alto, CA 94304.
SOURCE: Journal of immunology (Baltimore, Md. : 1950), (1991 Dec 1) Vol. 147, No. 11, pp. 3823-30.
Journal code: 2985117R. ISSN: 0022-1767.
PUB. COUNTRY: United States
DOCUMENT TYPE: (IN VITRO)
Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 199112
ENTRY DATE: Entered STN: 24 Jan 1992
Last Updated on STN: 29 Jan 1996
Entered Medline: 18 Dec 1991

AB We investigated the response of purified and cloned human thymic epithelial cells (TEC) to IL-1, IL-4, and IFN-gamma stimulation in vitro. IL-1 alpha strongly up-regulated the production of granulocyte-macrophage CSF (GM-CSF), granulocyte CSF (G-CSF), IL-6, and IL-8, as measured by specific immunoenzymetric assays and by increased steady state mRNA levels. IL-4 or IFN-gamma did not induce these cytokines in TEC but in a sustained and dose-dependent manner down-regulated the IL-1-induced GM-CSF protein and mRNA levels. Only IFN-gamma, and not IL-4, suppressed the IL-1-induced G-CSF and IL-8 production, as shown at both the protein and mRNA levels. The inhibition was dose dependent, sustained for at least 96 h, and more pronounced for G-CSF than for IL-8. In contrast, both IL-4 and IFN-gamma enhanced the IL-1-induced IL-6 production. IL-4 and IFN-gamma had additive effects to increase IL-6 secretion and to more completely suppress the IL-1-induced GM-CSF. Analyses of cell surface molecules showed that intercellular adhesion molecule 1 (ICAM-1) expression on TEC was increased by IL-1 or IFN-gamma. IL-4 slightly down-regulated constitutive ICAM-1 levels but did not significantly modify the levels of expression induced by either IL-1 or IFN-gamma. MHC class II expression was induced by IFN-gamma but not by IL-1 or IL-4. The combination of IL-1 and IL-4 with IFN-gamma did not alter the levels of class II MHC Ag induced by IFN-gamma. In conclusion, TEC cytokine production and cell surface molecule expression are differentially regulated via a complex cytokine network. Our data suggest that developing T cells provide, in part, the signals controlling the function of their supporting stroma.

L9 ANSWER 40 OF 63 MEDLINE on STN
ACCESSION NUMBER: 91131212 MEDLINE
DOCUMENT NUMBER: PubMed ID: 1993554
TITLE: Growth regulation of the AML-193 leukemic cell line: evidence for autocrine production of granulocyte-macrophage colony-stimulating factor (GM-CSF), and inhibition of GM-CSF-dependent cell proliferation by interleukin-1 (IL-1) and tumor necrosis factor (TNF alpha).
AUTHOR: Kindler V; Shields J; Ayer D; Mazzei G J
CORPORATE SOURCE: Glaxo Institute for Molecular Biology, Geneva, Switzerland.
SOURCE: International journal of cancer. Journal international du cancer, (1991 Feb 1) Vol. 47, No. 3, pp. 450-4.
Journal code: 0042124. ISSN: 0020-7136.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199103
ENTRY DATE: Entered STN: 5 Apr 1991
Last Updated on STN: 3 Feb 1997
Entered Medline: 15 Mar 1991
AB The human leukemic cell line AML-193 was tested for its proliferative response to endogenously produced autocrine factors and to a variety of cytokines and colony-stimulating factors. Cells grown in the absence of GM-CSF incorporated tritiated thymidine, and this was partially reversed by adding neutralizing anti-GM-CSF antibodies to the culture medium, suggesting that it was due, at least in part, to autocrine GM-CSF production. This was confirmed by immunopurification of a GM-CSF-like activity from cell supernatant of AML-193 cells grown in serum free medium in the absence of exogenous GM-CSF. When AML-193 cells were cultured with GM-CSF in combination with other cytokines, Interleukin-1 alpha and beta (IL-1 alpha and beta), Interleukin-3 (IL-3), Interleukin-6 (IL-6), granulocyte colony-stimulating factor (G-CSF) and tumor necrosis factor alpha (TNF alpha), none of them affected the concentration of GM-CSF required to induce 50% of maximum proliferation (D50). However, the maximum proliferation induced by GM-CSF alone was drastically decreased by IL-1 alpha, IL-1 beta and TNF alpha. Inhibition caused by exposure of the AML-193 to IL-1 for up to 24 hr was reversible, ruling out a direct cytotoxic effect.

L9 ANSWER 42 OF 63 MEDLINE on STN
ACCESSION NUMBER: 90271257 MEDLINE
DOCUMENT NUMBER: PubMed ID: 1693405
TITLE: Hematologic effects of interleukin-1 beta, granulocyte colony-stimulating factor, and granulocyte-macrophage colony-stimulating factor in tumor-bearing mice treated with fluorouracil.
AUTHOR: Moore M A; Stolfi R L; Martin D S
CORPORATE SOURCE: James Ewing Laboratory of Developmental Hematopoiesis, Memorial Sloan-Kettering Cancer Center, New York, NY 10021.
SOURCE: Journal of the National Cancer Institute, (1990 Jun 20) Vol. 82, No. 12, pp. 1031-7.
Journal code: 7503089. ISSN: 0027-8874.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199007
ENTRY DATE: Entered STN: 10 Aug 1990
Last Updated on STN: 29 Jan 1996
Entered Medline: 9 Jul 1990

AB Myelosuppression following intensive chemotherapy in cancer patients is associated with increased morbidity and mortality. Hematopoietic growth factors such as granulocyte colony-stimulating factor (G-CSF) and granulocyte-macrophage colony-stimulating factor (GM-CSF), alone or in combination with interleukin-1 (IL-1), have been shown to counteract myelosuppression resulting from some, but not all, chemotherapeutic regimens. In an attempt to apply these findings to intensive therapy with proliferation-dependent chemotherapeutic drugs such as fluorouracil (5-FU), we investigated combination biochemotherapy in a murine model. Female CD8F1 [(BALB/c X DBA/8)F1] mice bearing first-passage transplants of spontaneous CD8F1 breast tumors were treated intraperitoneally once a week for 3 successive weeks with a course of 5-FU alone or with a course of 5-FU in combination with recombinant human interleukin-1 beta (rHuIL-1 beta) alone or in combination with CSFs. rHuIL-1 beta alone or in combination with rHuG-CSF or recombinant murine GM-CSF significantly improved tumor growth inhibition (60% vs. 90%) and survival (20% vs. 90%-100%), increased the maximally tolerated dose of 5-FU, accelerated recovery of neutrophil counts in peripheral blood, and reduced duration of significant neutropenia and loss of body weight (29% vs. 10% loss). Clinical trials of IL-1 have been initiated in patients with advanced cancer receiving multiple courses of high-dose 5-FU.

L9 ANSWER 43 OF 63 MEDLINE on STN
ACCESSION NUMBER: 90151866 MEDLINE
DOCUMENT NUMBER: PubMed ID: 2406155
TITLE: Mechanism of action of interleukin 1 on the progenitors of blast cells in acute myeloblastic leukemia.
AUTHOR: Murohashi I; Tohda S; Suzuki T; Nagata K; Yamashita Y; Nara N
CORPORATE SOURCE: First Department of Internal Medicine, Tokyo Medical and Dental University, Japan.
SOURCE: Experimental hematology, (1990 Feb) Vol. 18, No. 2, pp. 133-7.
Journal code: 0402313. ISSN: 0301-472X.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199003
ENTRY DATE: Entered STN: 1 Jun 1990
Last Updated on STN: 1 Jun 1990
Entered Medline: 28 Mar 1990

AB We tested the effect of interleukin 1 (IL-1) on the growth of leukemic blast progenitors from patients with acute myeloblastic leukemia (AML). A purified blast cell fraction depleted of both T cells and phagocytic cells was tested at different cell densities. Addition of 1 ng/ml of IL-1 alpha alone enhanced blast colony formation in 10 of 13 cases tested, and the enhancement was prominent when plated cell densities were lowered. The conditioned media (CM) from AML patients contained varied levels of IL-1 activity, and following depletion of phagocytic cells, the levels decreased markedly in all cases tested. Addition of either antiserum against IL-1 alpha or IL-1 beta reduced the IL-1 activity in CM, suggesting that AML blasts produce both IL-1 alpha and IL-1 beta. Addition of IL-1 alpha or IL-1 beta antiserum inhibited blast colony formation in a dose-dependent manner, and a combination of both antisera showed the most marked inhibition . However, the augmentation of blast colony formation was almost completely inhibited by addition of anti-granulocyte-macrophage

colony-stimulating factor (GM-CSF) serum in all three cases tested. IL-1 is also devoid of this activity when tested in the presence of a combination of granulocyte CSF (G-CSF), GM-CSF, and interleukin 3 (IL-3) at an optimal concentration. These results suggest that blast cells could produce and secrete CSF(s) and/or IL-1, and that the growth-enhancing effect of IL -1 on AML blasts is indirect, via production of CSFs by leukemic cells.

L9 ANSWER 44 OF 63 MEDLINE on STN
ACCESSION NUMBER: 90028776 MEDLINE
DOCUMENT NUMBER: PubMed ID: 2679915
TITLE: Granulocyte-macrophage colony-stimulating factor is an endogenous regulator of cell proliferation in juvenile chronic myelogenous leukemia.
AUTHOR: Gualtieri R J; Emanuel P D; Zuckerman K S; Martin G; Clark S C; Shadduck R K; Dracker R A; Akabutu J; Nitschke R; Hetherington M L; +
CORPORATE SOURCE: Department of Medicine, Children's Hospital of Alabama, Birmingham.
CONTRACT NUMBER: CA 15237 (United States NCI)
CA 25408 (United States NCI)
DK07488 (United States NIDDK)
SOURCE: Blood, (1989 Nov 15) Vol. 74, No. 7, pp. 2360-7.
Journal code: 7603509. ISSN: 0006-4971.
PUB. COUNTRY: United States
DOCUMENT TYPE: (IN VITRO)
Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 198912
ENTRY DATE: Entered STN: 28 Mar 1990
Last Updated on STN: 3 Feb 1997
Entered Medline: 15 Dec 1989

AB Juvenile chronic myelogenous leukemia (JCML) is a rare myeloproliferative disorder of early childhood that is clinically and cytogenically distinct from the well-recognized adult type of chronic myeloid leukemia. Unlike the adult disease, growth of hematopoietic progenitors from peripheral blood (PB) occurs in the absence of exogenous stimulus even at low cell densities. This so-called "spontaneous" growth can be abrogated by adherent cell depletion and appears to depend on production of endogenous growth factors. We studied seven children with JCML to determine the nature of endogenous stimulators. With isolated PB mononuclear cells (PBMNCs) and a 3H-thymidine (3H-TdR) incorporation assay, JCML cells were shown to incorporate high levels of 3H-TdR when cultured in the absence of stimulus even at low cell densities. When neutralizing antisera prepared against each of the four known colony-stimulating factors (CSFs), GM-CSF, G-CSF, M-CSF, and interleukin-3 (IL-3), as well as antisera against interleukin-1 (alpha and beta) and tumor necrosis factor (TNF) were added to these cultures, only the antisera against recombinant human GM-CSF (rhGM-CSF) consistently resulted in significant inhibition of cell proliferation, achieving up to 72% inhibition of 3H-TdR incorporation in one case. Monoclonal antibodies (MoAbs) against rhGM-CSF resulted in a similar and highly significant degree of inhibition. A marked inhibitory effect of rhGM-CSF antiserum on "spontaneous" growth of PB CFU-GM derived colonies in semisolid medium was also demonstrated in four of five patients studied (87% to 90% inhibition). Production of growth factors by highly enriched JCML monocytes was variable. When initially studied in five of the seven patients, the monocytes from three of the patients revealed

increased release of IL-1-like activities; two patients had levels similar to those of controls. One patient with normal levels when initially studied was later shown to have markedly increased amounts of IL-1-like activities in a second preparation of monocyte-conditioned medium (MCM). High levels of GM-CSF were detected in the initial MCM from one patient, but this may have indirectly reflected elevated IL-1-like activities present in the MCM. IL-3 and M-CSF levels were either low or undetectable in the patients studied as compared with MCM prepared with normal adult monocytes. These results clearly implicate GM-CSF as the primary endogenous regulator of JCML cell proliferation in culture and suggest that this malignant myeloproliferative disease may in part result from paracrine stimulation of marrow progenitor cells by growth factors/cytokines secreted by the malignant monocytes.

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ACCESSION NUMBER: 2002:151969 BIOSIS
DOCUMENT NUMBER: PREV200200151969
TITLE: Human marrow stromal cells suppress growth factor-dependent proliferation of TF-1 erythroleukemic cells by a TGF-independent mechanism.
AUTHOR(S): Tse, William T. [Reprint author]; Egalka, Matthew C. [Reprint author]; Pendleton, John D. [Reprint author]; Guinan, Eva C. [Reprint author]
CORPORATE SOURCE: Division of Hematology/Oncology, Children's Hospital, Boston, MA, USA
SOURCE: Blood, (November 16, 2001) Vol. 98, No. 11 Part 2, pp. 147b. print.
Meeting Info.: 43rd Annual Meeting of the American Society of Hematology, Part 2. Orlando, Florida, USA. December 07-11, 2001. American Society of Hematology.
CODEN: BLOOAW. ISSN: 0006-4971.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 21 Feb 2002
Last Updated on STN: 26 Feb 2002

AB Marrow stromal cells (MSC) represent an essential component of the marrow microenvironment, which controls the growth and development of hematopoietic cells. We used the TF-1 human erythroleukemia cell line as target cells to test the ability of purified, primary human MSC to support growth factor (GF)-dependent proliferation of hematopoietic cells. Normally, TF-1 cells proliferate only in the presence of additional hematopoietic GFs such as GM-CSF, IL-3 or SCF in the culture medium. TF-1 cells were grown on a preplated, confluent monolayer of MSC in RPMI medium with 10% FSC for three days and their proliferation was assayed by tritiated thymidine incorporation. Even though MSC are known to secrete multiple GFs into the medium, including G-CSF, M-CSF, IL-6, IL-11, LIF, SCF, flt3 ligand and thrombopoietin, TF-1 cells did not proliferate when co-cultured with MSC. Treatment of MSC with IL -1, previously shown to enhance production of hematopoietic GFs, especially GM-CSF, did not lead to any increase in TF-1 proliferation. The lack of TF-1 proliferation persisted even when exogenous GM-CSF, IL-3 or SCF was added to the co-culture, indicating that MSC actively suppress GF-induced proliferation of TF-1 cells. Flow cytometric analyses of TF-1 cells co-cultured with MSC did not show any increase in apoptosis or down-regulation of GM-CSF receptor expression that could explain the MSC-mediated suppression of TF-1 proliferation in culture medium supplemented with GM-CSF. This suppressive effect was still seen when MSC were separated from the TF-1 cells by a permeable membrane in a Transwell system, suggesting that the suppression is mediated at least in part by

soluble factors. Addition of a neutralizing anti-TGF-beta1 monoclonal antibody did not reverse the MSC-associated suppressive activity, demonstrating that this effect cannot be fully explained by TGF-beta1, a well-known inhibitor of hematopoietic cell proliferation. To further characterize this MSC-associated suppressive activity, bone marrow mononuclear cells (BMMC) were isolated by Ficoll gradient fractionation and stimulated to proliferate with various hematopoietic GFs for three days in liquid culture, in the presence or absence of a MSC monolayer. Unlike TF-1 cells, BMMC proliferation in these bulk cultures was not suppressed by MSC. Colony-forming assays of BMMC co-cultured with MSC showed a slight increase in total erythroid colony-forming units (CFU), a decrease in macrophage CFU and no change in total CFU. This pattern is different from that seen in TGF-beta1-mediated inhibition of BMMC growth and suggests that the MSC-associated suppressive activity does not operate on the level of colony forming cells. We propose that MSC suppress GF-dependent hematopoietic cell proliferation by a mechanism distinct from that of TGF-beta1. This MSC-associated suppressive activity might represent a mechanism by which the bone marrow microenvironment maintains certain hematopoietic progenitors in a nonproliferative and quiescent state. The suppression of TF-1 cell proliferation by MSC may provide a simple assay to further characterize and purify this suppressive activity.

L9 ANSWER 50 OF 63 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN

ACCESSION NUMBER: 1992:478476 BIOSIS
DOCUMENT NUMBER: PREV199294109851; BA94:109851
TITLE: EFFECTS OF RECOMBINANT HUMAN ERYTHROPOIETIN ON CLONOGENIC GROWTH OF PRIMARY HUMAN TUMOR SPECIMENS IN-VITRO.
AUTHOR(S): BAUER E [Reprint author]; DANHAUSER-RIEDL S; DE RIESE W; RAAB H-R; SANDNER S; MEYER H-J; NEUKAM D; HANAUSKE U; FREUND M; ET AL
CORPORATE SOURCE: INQ: AXEL-R HANAUSKE, DIV OF HEMATOL AND ONCOL, DEP MED,TECHNISCHE UNIVERSITAET, KLINIKUM RECHTS DER ISAR, W-8000 MUENCHEN 80, GERMANY
SOURCE: Onkologie, (1992) Vol. 15, No. 3, pp. 254-258. CODEN: ONKOD2. ISSN: 0378-584X.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 27 Oct 1992
Last Updated on STN: 28 Oct 1992

AB Background: Production of Erythropoietin has been reported for various tumor cell lines in vitro. Also, a number of clinical reports indicate aberrant synthesis and release of erythropoietin, particularly in renal cell cancer patients. These findings raise the question whether erythropoietin, besides its hematopoietic lineage specificity, can exert an autocrine growth modulating effect on non-hematopoietic cells. Material and Methods: We have studied the effects of recombinant human erythropoietin (rhE) on in vitro clonogenic growth of human primary tumor specimens using a soft agar cloning system. Final concentrations ranged from 0.4-400 U/ml. Results: 53/116 (45.7%) tumor specimens were evaluable. Median colony formation in control capillaries without erythropoietin was 10.0 (range 3.0-274.0). Significant stimulation of clonal growth was observed in only two specimens (3.8%) and was not concentration-dependent. Five of 53 (9%) specimens showed inhibition of colony formation in at least one concentration of recombinant human erythropoietin. In four of these specimens, inhibition was observed at 400 U/ml only. Diluent controls were without effect. There was no evidence for a functional interaction between rhE and Interleukin (IL)-1.alpha., IL -1.beta., IL-3, IL-6, GM-CSF, or G-CSF.

Discussion: Our data indicate that erythropoietin is not a growth factor for clonogenic cells of primary tumors in vitro and that concerns about tumor stimulation in the clinical setting are not warranted.

L9 ANSWER 53 OF 63 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2002:479171 CAPLUS
DOCUMENT NUMBER: 137:180182
TITLE: Granulocyte colony-stimulating factor attenuates LPS-stimulated IL-1β release via suppressed processing of proIL-1β, whereas TNF-α release is inhibited on the level of proTNF-α formation
AUTHOR(S): Boneberg, Eva-Maria; Hartung, Thomas
CORPORATE SOURCE: Biochemical Pharmacology, University of Konstanz, Konstanz, Germany
SOURCE: European Journal of Immunology (2002), 32(6), 1717-1725
CODEN: EJIMAF; ISSN: 0014-2980
PUBLISHER: Wiley-VCH Verlag GmbH
DOCUMENT TYPE: Journal
LANGUAGE: English
AB In the presence of granulocyte colony-stimulating factor (G-CSF), the release of IL-1.beta. and TNF-α by LPS-stimulated human whole blood was suppressed. Via measurement of cytokine mRNA, inactive precursor and mature protein, the authors investigated whether this inhibition occurs at the transcriptional, translational or post-translational level of cytokine production G-CSF inhibited IL-1.beta. release, but the formation of proIL-1β was not attenuated, indicating that G-CSF interferes with the proteolytic processing of proIL-1β. Since the release of IL-1.beta. in LPS-stimulated whole blood was blocked by the caspase-1 inhibitor YVAD-cmk, processing of proIL-1β appears to depend on caspase-1 activity. The conclusion that G-CSF inhibits caspase-1 activity was supported by the finding that the release of IL-18 was also inhibited by G-CSF, similar to IL-1.beta. release. Intracellular caspase-1 activity in monocytes was measured by flow cytometry with the cell-permeable caspase substrate Asp2-rhodamine. In the presence of G-CSF the cleavage of this substrate was inhibited by more than 50%. G-CSF had no effect on LPS-induced doubling of caspase-1 mRNA, indicating that G-CSF affects caspase-1 activation and not its formation. For TNF-α another mechanism of G-CSF action was identified: TNF-α as well as proTNF-α formation were inhibited by G-CSF, but G-CSF had no influence on LPS-induced TNF-α mRNA level. The authors therefore suggested that G-CSF causes translational silencing of LPS-induced TNF-α mRNA.
REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 56 OF 63 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2000:17634 CAPLUS
DOCUMENT NUMBER: 132:150464
TITLE: Human monocytes express functional receptors for granulocyte colony-stimulating factor that mediate suppression of monokines and interferon-γ
AUTHOR(S): Boneberg, Eva-Maria; Hareng, Lars; Gantner, Florian; Wendel, Albrecht; Hartung, Thomas
CORPORATE SOURCE: Biochemical Pharmacology, University of Konstanz, Konstanz, D-78457, Germany
SOURCE: Blood (2000), 95(1), 270-276

CODEN: BLOOAW; ISSN: 0006-4971
PUBLISHER: American Society of Hematology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB In a double-blind, placebo-controlled, randomized study, 10 healthy men received either a single dose of 480 μg granulocyte colony-stimulating factor (G-CSF) or saline. Blood taken from the volunteers was stimulated with 10 μg/mL endotoxin and released cytokines were measured by ELISA. Expression of G-CSF receptors on leukocytes was examined by flow cytometry and reverse transcriptase-polymerase chain reaction. Functional activity of these receptors was tested by challenging isolated leukocyte populations to release cytokines with endotoxin in the presence of G-CSF. The G-CSF treatment attenuated the release of the proinflammatory cytokines tumor necrosis factor (TNF)-α, interleukin (IL)-12, IL-1.beta., and interferon (IFN)-γ in ex vivo lipopolysaccharide (LPS)-stimulated whole blood. In blood from untreated volunteers the presence of G-CSF in vitro also attenuated the LPS-stimulated release of these cytokines. G-CSF in vitro also attenuated TNF-α release from elutriation-purified monocytes. In the presence of 10 ng/mL recombinant TNF-α, the attenuation of LPS-inducible IFN-γ release by G-CSF was blunted in whole blood. However, G-CSF had no such effect on IFN-γ release from isolated lymphocytes stimulated with anti-CD3 or a combination of TNF-α and IL-12. G-CSF receptor expression was detected in human neutrophils and monocytes but not in lymphocytes by RT-PCR as well as flow cytometry. These results indicate that G-CSF receptors expressed on monocytes are functional in modulating monokine release. The authors conclude that the attenuation of IFN-γ release from lymphocytes is not a direct effect of G-CSF on these cells but is rather due to the inhibition of monocytic IL-12 and TNF-α release by G-CSF.
REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 63 OF 63 EMBASE
ACCESSION NUMBER: 1994267970 EMBASE
TITLE: Differential effects of the bicyclic imidazoles on cytokine biosynthesis in human monocytes and endothelial cells.
AUTHOR: Lee, J.C. (correspondence); Laydon, J.T.; White, J.R.
CORPORATE SOURCE: Department of Cellular Biochemistry, SmithKline Beecham Pharmaceuticals, King of Prussia, PA 19406, United States.
SOURCE: Agents and Actions, (1994) Vol. 41, No. SPEC. ISS. II, pp. C191-C192.
ISSN: 0065-4299 CODEN: AGACBH
COUNTRY: Switzerland
DOCUMENT TYPE: Journal; Conference Article; (Conference paper)
FILE SEGMENT: 026 Immunology, Serology and Transplantation
029 Clinical and Experimental Biochemistry
030 Clinical and Experimental Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 14 Sep 1994
Last Updated on STN: 14 Sep 1994
AB The effects of bicyclic imidazoles on human monocyte and endothelial cell cytokine production were examined. These compounds constitute the CSAID(TM) class of anti-inflammatories and are inhibitors of cytokine biosynthesis. The bicyclic imidazoles differ from glucocorticoids and

phosphodiesterase inhibitors in their chemical structure as well as pharmacological profile. At optimal concentrations of LPS (50 ng/ml), SK and F 86002, a prototypic compound, inhibited IL-1 and TNF but not g-CSF or IRAP production in human monocytes. At suboptimal concentrations of LPS (50 pg/ml), IL-6 and IL-8 production were also inhibited. Inhibition of cytokine biosynthesis was stimulus independent. For example, induction of IL-1 or TNF expression by phosphatase 1 and 2A inhibitors (Okadaic acid or Calyculin A) and Vitamin D3-dependent induction of IL-1 or TNF was also inhibited. In addition, IL-8 production, but not ICAM/E-Selectin expression in IL-1-stimulated HUVEC, was inhibited at similar IC(50)s. Taken together, the bicyclic imidazoles inhibit cytokine production selectively in a stimulus and cell type independent manner.

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NEWS 5	OCT 22	Current-awareness alert (SDI) setup and editing enhanced
NEWS 6	OCT 22	WPIDS, WPINDEX, and WPIX enhanced with Canadian PCT Applications
NEWS 7	OCT 24	CHEMLIST enhanced with intermediate list of pre-registered REACH substances
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NEWS 17	JAN 07	WPIDS, WPINDEX, and WPIX enhanced Japanese Patent

Classification Data

NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,
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=> S Diabetes (S) (type I) (S) (type II) AND review AND pd<=20040415
1 FILES SEARCHED...
L1 255 DIABETES (S) (TYPE I) (S) (TYPE II) AND REVIEW AND PD<=20040415

=> Dup rem L1
PROCESSING COMPLETED FOR L1
L2 178 DUP REM L1 (77 DUPLICATES REMOVED)
ANSWERS '1-49' FROM FILE MEDLINE
ANSWERS '50-56' FROM FILE BIOSIS
ANSWERS '57-116' FROM FILE CAPLUS
ANSWERS '117-178' FROM FILE EMBASE

=> D Ti L2 1-49

L2 ANSWER 1 OF 178 MEDLINE on STN DUPLICATE 1
TI Volatile metabolic monitoring of glycemic status in diabetes using

electronic olfaction.

L2 ANSWER 2 OF 178 MEDLINE on STN DUPLICATE 2
TI Molecular and cellular basis of the aetiology and management of diabetic cardiomyopathy: a short review.

L2 ANSWER 3 OF 178 MEDLINE on STN DUPLICATE 3
TI Role of caspases in the regulation of apoptotic pancreatic islet beta-cells death.

L2 ANSWER 4 OF 178 MEDLINE on STN DUPLICATE 4
TI The endothelium in health and disease: a discussion of the contribution of non-nitric oxide endothelium-derived vasoactive mediators to vascular homeostasis in normal vessels and in type II diabetes.

L2 ANSWER 5 OF 178 MEDLINE on STN DUPLICATE 5
TI Glaucoma among Omani diabetic patients: a cross-sectional descriptive study: (Oman diabetic eye study 2002).

L2 ANSWER 6 OF 178 MEDLINE on STN DUPLICATE 6
TI Treatment of non-insulin-dependent diabetes mellitus.

L2 ANSWER 7 OF 178 MEDLINE on STN DUPLICATE 7
TI The endothelium in health and disease--a target for therapeutic intervention.

L2 ANSWER 8 OF 178 MEDLINE on STN DUPLICATE 9
TI Genes and engineered cells as drugs for type I and type II diabetes mellitus therapy and prevention.

L2 ANSWER 9 OF 178 MEDLINE on STN DUPLICATE 10
TI Mice with targeted gene disruptions or gene insertions for diabetes research: problems, pitfalls, and potential solutions.

L2 ANSWER 10 OF 178 MEDLINE on STN DUPLICATE 11
TI Diabetic nephropathy: the central role of renal proximal tubular cells in tubulointerstitial injury.

L2 ANSWER 11 OF 178 MEDLINE on STN DUPLICATE 12
TI The effect of nonmalignant systemic disease on tolerance to radiation therapy.

L2 ANSWER 12 OF 178 MEDLINE on STN DUPLICATE 13
TI Pramlintide (Amylin).

L2 ANSWER 13 OF 178 MEDLINE on STN DUPLICATE 15
TI Diabetes mellitus and the stomach.

L2 ANSWER 14 OF 178 MEDLINE on STN DUPLICATE 17
TI Hazardous crossing: immunosuppression and nosocomial infections in solid organ transplant recipients.

L2 ANSWER 15 OF 178 MEDLINE on STN DUPLICATE 18
TI Diabetes and gender.

L2 ANSWER 16 OF 178 MEDLINE on STN DUPLICATE 19
TI A new look at the heart in diabetes mellitus: from ailing to failing.

L2 ANSWER 17 OF 178 MEDLINE on STN DUPLICATE 20
TI Putative pathophysiological role of growth factors and cytokines in experimental diabetic kidney disease.

L2 ANSWER 18 OF 178 MEDLINE on STN DUPLICATE 22
TI An evidence-based review of ACE inhibitors in incipient diabetic nephropathy.

L2 ANSWER 19 OF 178 MEDLINE on STN DUPLICATE 28
TI Beta-cell behavior during the prediabetic stage. Part I. Beta-cell pathophysiology.

L2 ANSWER 20 OF 178 MEDLINE on STN DUPLICATE 30
TI Hypomagnesemia and diabetes mellitus. A review of clinical implications.

L2 ANSWER 21 OF 178 MEDLINE on STN DUPLICATE 31
TI Vanadium salts as insulin substitutes: mechanisms of action, a scientific and therapeutic tool in diabetes mellitus research.

L2 ANSWER 22 OF 178 MEDLINE on STN DUPLICATE 32
TI The occurrence of diabetic ketoacidosis in non-insulin-dependent diabetes and newly diagnosed diabetic adults.

L2 ANSWER 23 OF 178 MEDLINE on STN DUPLICATE 33
TI Assessment of diabetes-related distress.

L2 ANSWER 24 OF 178 MEDLINE on STN DUPLICATE 35
TI Natural history of early diabetic nephropathy: what are the effects of therapeutic intervention? Melbourne Diabetic Nephropathy Study Group.

L2 ANSWER 25 OF 178 MEDLINE on STN DUPLICATE 36
TI Effects of vanadate on the expression of genes involved in fuel homeostasis in animal models of Type I and
Type II diabetes.

L2 ANSWER 26 OF 178 MEDLINE on STN DUPLICATE 37
TI Hypertension in diabetic patients: an update of interventional studies to preserve renal function.

L2 ANSWER 27 OF 178 MEDLINE on STN DUPLICATE 39
TI Hemostatic and metabolic abnormalities in diabetes mellitus. The search for a link.

L2 ANSWER 28 OF 178 MEDLINE on STN DUPLICATE 40
TI Diabetic retinopathy.

L2 ANSWER 29 OF 178 MEDLINE on STN DUPLICATE 41
TI Review of diabetes: identification of markers for early detection, glycemic control, and monitoring clinical complications.

L2 ANSWER 30 OF 178 MEDLINE on STN DUPLICATE 42
TI Nonmydriatic fundus photography in screening for treatable diabetic retinopathy.

L2 ANSWER 31 OF 178 MEDLINE on STN DUPLICATE 43
TI Is hypertension an insulin-resistant state? Metabolic changes associated with hypertension and antihypertensive therapy.

L2 ANSWER 32 OF 178 MEDLINE on STN DUPLICATE 44
TI Mechanisms of hypertension in diabetes.

L2 ANSWER 33 OF 178 MEDLINE on STN DUPLICATE 45
TI Devices for insulin administration.

L2 ANSWER 34 OF 178 MEDLINE on STN DUPLICATE 46
TI Insulin resistance and hypertension.

L2 ANSWER 35 OF 178 MEDLINE on STN DUPLICATE 47
TI The relationship between primary hyperparathyroidism and diabetes mellitus.

L2 ANSWER 36 OF 178 MEDLINE on STN DUPLICATE 48
TI Micronutrient status in diabetes mellitus.

L2 ANSWER 37 OF 178 MEDLINE on STN DUPLICATE 49
TI Definition of diabetes mellitus.

L2 ANSWER 38 OF 178 MEDLINE on STN DUPLICATE 50
TI Insulin-mediated and non-insulin-mediated metabolic effects of gastroenteropancreatic peptides in type I and type II diabetes.

L2 ANSWER 39 OF 178 MEDLINE on STN DUPLICATE 51
TI Self-monitoring of blood glucose levels in diabetes. Principles and practice.

L2 ANSWER 40 OF 178 MEDLINE on STN DUPLICATE 52
TI Nutritional management of pregnancy complicated by diabetes: historical perspective.

L2 ANSWER 41 OF 178 MEDLINE on STN
TI Does cardiovascular therapy affect the onset and recurrence of preretinal and vitreous haemorrhage in diabetic eye disease?.

L2 ANSWER 42 OF 178 MEDLINE on STN
TI [Combination treatment with insulin and metformin in type 2 diabetes. Improves glycemic control and prevents weight gain].
Kombinationsbehandling med insulin och metformin vid typ 2-diabetes. Forbattrar blodglukoskontroll och motverkar viktuppgang.

L2 ANSWER 43 OF 178 MEDLINE on STN
TI Alcohol-associated diabetes mellitus. A review of the impact of alcohol consumption on carbohydrate metabolism.

L2 ANSWER 44 OF 178 MEDLINE on STN
TI Contraception in the diabetic woman.

L2 ANSWER 45 OF 178 MEDLINE on STN
TI Diabetic nephropathy: a clinical study of 498 patients.

L2 ANSWER 46 OF 178 MEDLINE on STN
TI Controlled drug delivery in the treatment of diabetes mellitus.

L2 ANSWER 47 OF 178 MEDLINE on STN
TI The genetics of type I and type II diabetes: analysis by recombinant DNA methodology.

L2 ANSWER 48 OF 178 MEDLINE on STN
TI Receptors, antibodies, and disease.

L2 ANSWER 49 OF 178 MEDLINE on STN
TI [Current diagnostic criteria, current classification of and clinical approach to diabetes mellitus].
Nouveaux criteres diagnostiques nouvelles classifications du diabete sucre et attitudes cliniques.

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L1           255 S DIABETES (S) (TYPE I) (S) (TYPE II) AND REVIEW AND PD<=200404
L2           178 DUP REM L1 (77 DUPLICATES REMOVED)

=> D ibib abs L2 3,6,8,12,13,19,27,37,38,47,48

L2   ANSWER 3 OF 178     MEDLINE on STN                  DUPLICATE 3
ACCESSION NUMBER:   2004273848     MEDLINE
DOCUMENT NUMBER:    PubMed ID: 15174089
TITLE:              Role of caspases in the regulation of apoptotic pancreatic
                    islet beta-cells death.
AUTHOR:             Hui Hongxiang; Dotta Francesco; Di Mario Umberto; Perfetti
                    Riccardo
CORPORATE SOURCE:   Division of Diabetes, Endocrinology and Metabolism,
                    Cedars-Sinai Medical Center, Los Angeles, California 90048,
                    USA.
SOURCE:             Journal of cellular physiology, (2004 Aug) Vol.
                    200, No. 2, pp. 177-200.  Ref: 247
                    Journal code: 0050222. ISSN: 0021-9541.
PUB. COUNTRY:       United States
DOCUMENT TYPE:      Journal; Article; (JOURNAL ARTICLE)
                    General Review; (REVIEW)
LANGUAGE:           English
FILE SEGMENT:       Priority Journals
ENTRY MONTH:        200408
ENTRY DATE:         Entered STN: 3 Jun 2004
                    Last Updated on STN: 17 Aug 2004
                    Entered Medline: 16 Aug 2004
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AB The homeostatic control of beta-cell mass in normal and pathological conditions is based on the balance of proliferation, differentiation, and death of the insulin-secreting cells. A considerable body of evidence, accumulated during the last decade, has emphasized the significance of the disregulation of the mechanisms regulating the apoptosis of beta-cells in the sequence of events that lead to the development of diabetes. The identification of agents capable of interfering with this process needs to be based on a better understanding of the beta-cell specific pathways that are activated during apoptosis. The aim of this article is fivefold: (1) a review of the evidence for beta-cell apoptosis in Type I diabetes, Type II diabetes , and islet transplantation, (2) to review the common stimuli and their mechanisms in pancreatic beta-cell apoptosis, (3) to review the role of caspases and their activation pathway in beta-cell apoptosis, (4) to review the caspase cascade and morphological cellular changes in apoptotic beta-cells, and (5) to highlight the putative strategies for preventing pancreatic beta-cells from apoptosis.

L2 ANSWER 6 OF 178 MEDLINE on STN DUPLICATE 6
ACCESSION NUMBER: 2003149563 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12665417
TITLE: Treatment of non-insulin-dependent diabetes mellitus.
AUTHOR: Patel Mona; Rybczynski Philip J
CORPORATE SOURCE: Room PC110, Bldg: PCC, Johnson & Johnson Pharmaceutical Research and Development, L.L.C., 1000 Route 202, Raritan, NJ 08869, USA.. mpatel5@prdus.jnj.com
SOURCE: Expert opinion on investigational drugs, (2003 Apr) Vol. 12, No. 4, pp. 623-33. Ref: 66
Journal code: 9434197. ISSN: 1354-3784.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200306
ENTRY DATE: Entered STN: 1 Apr 2003
Last Updated on STN: 11 Jun 2003
Entered Medline: 10 Jun 2003
AB Diabetes mellitus has been declared to be at an epidemic level by the World Health Organization. The syndrome is characterised as either Type I (insulin-dependent) or Type II (non-insulin-dependent) diabetes mellitus. Impaired glucose tolerance for extended periods of time results in serious complications such as kidney damage and impaired blood circulation and is the main cause for blindness and amputations in patients with diabetes. A combination of life-style change, dietary change and oral medications can treat Type II diabetes mellitus effectively and prevent long-term complications. Combination therapy appears to be the most effective approach in controlling blood glucose levels. This review updates the progress made in medicinal chemistry towards promising biological targets, with the development of a new generation of small molecules having improved efficacy and safety profiles.

L2 ANSWER 8 OF 178 MEDLINE on STN DUPLICATE 9
ACCESSION NUMBER: 2002347317 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12090547
TITLE: Genes and engineered cells as drugs for type I and type II diabetes mellitus therapy and prevention.
AUTHOR: Giannoukakis Nick; Pietropaolo Massimo; Trucco Massimo

CORPORATE SOURCE: Department of Pathology, University of Pittsburgh School of Medicine, PA 15213, USA.. ngiann1@pitt.edu
SOURCE: Current opinion in investigational drugs (London, England : 2000), (2002 May) Vol. 3, No. 5, pp. 735-51.
Ref: 227
Journal code: 100965718. ISSN: 1472-4472.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: (IN VITRO)
Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200301
ENTRY DATE: Entered STN: 2 Jul 2002
Last Updated on STN: 28 Jan 2003
Entered Medline: 27 Jan 2003

AB Despite the manageability of diabetes mellitus, complications associated with the disorder necessitate novel approaches to prevent immune-mediated impairment and destruction in type 1 diabetes, as well as the pancreatic insufficiency and peripheral resistance to insulin in type 2 diabetes. Islet transplantation is evolving into a clinical reality to treat type 1 diabetics and novel uses of gene engineering technology promise to result in tolerance to auto-, allo- and xenoantigens as well as microenvironment-specific immunosuppression. Through the use of a variety of gene delivery vehides, an increasing number of studies demonstrate the feasibility of shielding islet transplants and surrogate beta cells from immune rejection by the local secretion of immunosuppressive soluble molecules and anti-apoptotic factors. Although the achievements of gene and cell therapy in type 2 diabetes mellitus are less clear, seminal studies demonstrate the relevance of this approach to the treatment and perhaps prevention of the underlying causes of the disease, including obesity and insulin resistance. In this review, we attempt to illustrate pivotal studies demonstrating the suitability of genes and cells as drugs in type 1 and type 2 diabetes mellitus, and also provide some other targets that may be suitable for clinical utility.

L2 ANSWER 12 OF 178 MEDLINE on STN DUPLICATE 13
ACCESSION NUMBER: 2002034665 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11763160
TITLE: Pramlintide (Amylin).
AUTHOR: Barlocco D
CORPORATE SOURCE: University of Milan, 1st Chimo Farmaceutico/Tossicologico, Italy.. daniela.barlocco@unimi.it
SOURCE: Current opinion in investigational drugs (London, England : 2000), (2001 Nov) Vol. 2, No. 11, pp. 1575-81.
Ref: 35
Journal code: 100965718. ISSN: 1472-4472.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200205
ENTRY DATE: Entered STN: 24 Jan 2002
Last Updated on STN: 8 May 2002
Entered Medline: 7 May 2002

AB Pramlintide is a human amylin analog, under development by Amylin (originally in collaboration with Johnson & Johnson), as an adjunct with insulin for the potential prevention of complications of type I diabetes, and as a single agent for type II diabetes [279804], [295121], [305454]. In December 2000, Amylin submitted a US NDA seeking approval to market pramlintide as

an adjunctive therapy for type 1 and 2 diabetics using insulin [392527]; the application was accepted for review by the FDA in January 2001 [396938], and was scheduled for review by the Endocrinologic and Metabolic Drugs Advisory Committee on July 26 2001 [408924]. In May 2001, Amylin submitted an MAA for pramlintide to the EMEA [411323] and in October 2001, Amylin received an approvable letter from the FDA for both Type I and insulin-using Type II diabetes; however, at this time, discussions with the FDA were ongoing regarding additional clinical work that was required before the NDA would be approved [425570].

L2 ANSWER 13 OF 178 MEDLINE on STN DUPLICATE 15
ACCESSION NUMBER: 2001549925 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11596661
TITLE: Diabetes mellitus and the stomach.
AUTHOR: Stacher G
CORPORATE SOURCE: Psychophysiology Unit, Department of Surgery, University of Vienna, Austria.. georg.stacher@akh-wien.ac.at
SOURCE: Diabetologia, (2001 Sep) Vol. 44, No. 9, pp. 1080-93. Ref: 179
Journal code: 0006777. ISSN: 0012-186X.
PUB. COUNTRY: Germany: Germany, Federal Republic of
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200202
ENTRY DATE: Entered STN: 15 Oct 2001
Last Updated on STN: 1 Aug 2002
Entered Medline: 20 Feb 2002
AB Many patients with diabetes mellitus complain of early satiety and postprandial gastric fullness. In 1945, these symptoms were first found to result from a gastric motor dysfunction which makes the delivery of ingesta into the small intestine, the time of their absorption and the related blood-glucose rise unpredictable. Consequently, insulin or hypoglycaemic agents are administered at inappropriate time points and poor glycaemic control ensues. About 50% of patients with Type I (insulin-dependent) and Type II (non-insulin-dependent) diabetes mellitus are affected. Hyperglycaemia may play an important role in the disorder: gastric emptying was found to be slower in states of induced hyperglycaemia than in euglycaemia. However, significantly reduced blood-glucose concentrations after therapy readjustment were not associated with an increase in emptying rate. Prolonged hyperglycaemia could alter nerve metabolism and contribute to the development of neuropathy. Severity of cardiovascular autonomic neuropathy, but not actual blood-glucose and glycated haemoglobin level, has been found to correlate with the degree of emptying impairment. Drugs enhancing gastric emptying could improve the coordination between insulin administration and the onset of nutrient absorption and thus glycaemic control. Disappointingly, trials to study the long-term effects of such drugs are scarce and their results predominantly negative. In conclusion, many diabetic patients have impaired gastric motor function which could contribute to poor glycaemic control. Evidence suggests that autonomic neuropathy is the main underlying factor. This review aims to offer a critical survey of all the data available at present on these topics.

L2 ANSWER 19 OF 178 MEDLINE on STN DUPLICATE 28
ACCESSION NUMBER: 1997378364 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9233994
TITLE: Beta-cell behavior during the prediabetic stage. Part I. Beta-cell pathophysiology.

AUTHOR: Homo-Delarche F
CORPORATE SOURCE: CNRS URA 1461, Universite Paris V, Hopital Necker, France.
SOURCE: Diabetes & metabolism, (1997 Jun) Vol. 23, No. 3, pp. 181-94. Ref: 123
Journal code: 9607599. ISSN: 1262-3636.
PUB. COUNTRY: France
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
General Review; (REVIEW)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199709
ENTRY DATE: Entered STN: 16 Sep 1997
Last Updated on STN: 3 Mar 2000
Entered Medline: 4 Sep 1997

AB beta-Cell function in non-insulin dependent diabetes mellitus (NIDDM) or type II diabetes, in particular during the prediabetic stage, has been more extensively investigated than in insulin-dependent diabetes mellitus (IDDM) or type I diabetes. Recently, however, the existence of a beta-cell dysfunction, early during the prediabetic stage of IDDM, and its possible contribution to the amplification of the autoimmune reaction have been underlined. Here, in a first of two parts, an attempt is made to review the various ways normal beta cells cope with increased demands on their resources in different models of hyperglycaemia in order to better delineate and compare the mechanisms implicating beta cells in the pathogenesis of both types of diabetes.

L2 ANSWER 27 OF 178 MEDLINE on STN DUPLICATE 39
ACCESSION NUMBER: 1995104699 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7806096
TITLE: Hemostatic and metabolic abnormalities in diabetes mellitus. The search for a link.
AUTHOR: Piemontino U; Ceriello A; Di Minno G
CORPORATE SOURCE: Clinica Medica, Universita degli Studi di Napoli, Italy.
SOURCE: Haematologica, (1994 Jul-Aug) Vol. 79, No. 4, pp. 387-92. Ref: 47
Journal code: 0417435. ISSN: 0390-6078.
PUB. COUNTRY: Italy
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199501
ENTRY DATE: Entered STN: 15 Feb 1995
Last Updated on STN: 29 Jan 1996
Entered Medline: 30 Jan 1995

AB BACKGROUND. As many as 80% of diabetic patients die from major thrombotic complications of atherosclerosis, stroke and myocardial infarction. Plasma and cellular components of the hemostatic system are often abnormal in diabetic patients, and some of these abnormalities may play a role in the high risk of thrombosis in these patients. MATERIALS AND METHODS. Clinical studies imply that certain hemostatic abnormalities of diabetic patients are related, to some extent, to poor metabolic control. Thus, a critical review of the data available in the specialized literature has been carried out. RESULTS. Although suggestive, the link between hemostatic and metabolic abnormalities in diabetes mellitus is only circumstantial. Little is known about similarities and differences between type I and type II diabetes mellitus with respect to hemostatic parameters. Likewise, current understanding of the effects on the hemostatic system of the combination of glucose and lipid abnormalities often coexisting in

diabetic patients is rather limited. CONCLUSIONS. Ad hoc studies are mandatory to clarify unsolved issues in this field and define the extent to which good metabolic control is crucial to preventing the risk of thrombosis in diabetes mellitus.

L2 ANSWER 37 OF 178 MEDLINE on STN DUPLICATE 49
ACCESSION NUMBER: 1986191300 MEDLINE
DOCUMENT NUMBER: PubMed ID: 3516569
TITLE: Definition of diabetes mellitus.
AUTHOR: Stogdale L
SOURCE: The Cornell veterinarian, (1986 Apr) Vol. 76, No. 2, pp. 156-74. Ref: 145
Journal code: 0074245. ISSN: 0010-8901.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LANGUAGE: English
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ENTRY MONTH: 198606
ENTRY DATE: Entered STN: 21 Mar 1990
Last Updated on STN: 21 Mar 1990
Entered Medline: 3 Jun 1986
AB The nomenclature of human diabetes mellitus (DM) has been revised, and this classification has been accepted throughout the medical world and literature. The major categories of diabetes are: insulin-dependent DM, type I or IDDM; noninsulin-dependent DM, type II or NIDDM; secondary DM or type S; impaired glucose tolerance, IGT; gestational diabetes; and previous abnormality of glucose tolerance, PrevAGT. A review of the literature has shown that over half of the documented diabetic dogs, with a single medical diagnosis, appear to be type I, IDDM, with a substantial proportion being type S, and the remainder being type II, NIDDM. Obesity is frequently associated with IGT and NIDDM. Diabetic cats most commonly have pancreatic islet destruction associated with pancreatic amyloidosis; they are insulin deficient, IDDM. The commonest causes of secondary diabetes in dogs are pancreatic damage, hyperadrenocorticism and hypersomatotropism secondary to persistent progesterone influence. Progestogen therapy is the most frequently reported cause of secondary diabetes in cats. Diabetes in horses is type S, usually secondary to a functional pituitary tumor but occasionally following chronic pancreatitis. The blood glucose ranges for normal, IGT and diabetic animals, and the normal serum insulin values of various species is tabulated.

L2 ANSWER 38 OF 178 MEDLINE on STN DUPLICATE 50
ACCESSION NUMBER: 1985303605 MEDLINE
DOCUMENT NUMBER: PubMed ID: 4036714
TITLE: Insulin-mediated and non-insulin-mediated metabolic effects of gastroenteropancreatic peptides in type I and type II diabetes
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AUTHOR: Dupre J; Baer A; Lee M; McDonald T J; Radziuk J; Rodger N W; Sullivan S
SOURCE: Advances in experimental medicine and biology, (1985) Vol. 189, pp. 207-25.
Journal code: 0121103. ISSN: 0065-2598.
PUB. COUNTRY: United States
DOCUMENT TYPE: (COMPARATIVE STUDY)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198510

ENTRY DATE: Entered STN: 20 Mar 1990
Last Updated on STN: 20 Mar 1990
Entered Medline: 24 Oct 1985

AB In this brief review of regulatory function of gastroenteropancreatic peptides in control of intermediary metabolism in normal and diabetic states, with and without mediation by insulin and/or glucagon, a variety of possible mechanisms have been described. It is apparent that the pharmacologic actions of the peptides identified in various locations provide models for multiple routes of delivery and modes of action of effectors in this control system. Examples already exist of each of the hypothetical mechanisms illustrated in the scheme in Figure 4. It is clear that a great deal of study will be necessary in identification of the active agents and assessment of their importance in the physiology of intermediary metabolism. With respect to the possible pathophysiologic roles of regulatory peptides of the gastroenteropancreatic system other than insulin and glucagon, a number of considerations of Type I and Type II diabetes have been raised. The balance of the evidence suggests that Type I diabetes may be viewed as an insulin deficiency syndrome, so that physiological replacement with insulin may be expected to result in correction of the metabolic abnormalities. Nevertheless, the difficulty of physiologic replacement treatment, which may call for portal delivery of insulin, is well recognized, and abnormalities secondary to insulin deficiency even in "well-treated" Type I diabetes may be compounded by the effects of gastroenteropancreatic peptides other than insulin, exerted through the various mechanisms discussed. In Type II diabetes mellitus, current understanding of the pathophysiology is much less complete and no convincing description of the etiology exists. The various metabolic actions of the gastroenteropancreatic peptides, and their interactions with other endocrine, paracrine and nervous regulatory mechanisms, represent a dauntingly complex control system. The elucidation of this system can provide fertile ground for the development and testing of hypotheses for the pathophysiology of disordered metabolism in Type II diabetes mellitus.

L2 ANSWER 47 OF 178 MEDLINE on STN
ACCESSION NUMBER: 1985303615 MEDLINE
DOCUMENT NUMBER: PubMed ID: 3898768
TITLE: The genetics of type I and type II diabetes: analysis by recombinant DNA methodology.
AUTHOR: Permutt M A; Andreone T; Chirgwin J; Elbein S; Rotwein P; Orland M
CONTRACT NUMBER: AM16746 (United States NIADDK)
AM31866 (United States NIADDK)
SOURCE: Advances in experimental medicine and biology, (1985) Vol. 189, pp. 89-106.
Journal code: 0121103. ISSN: 0065-2598.
PUB. COUNTRY: United States
DOCUMENT TYPE: (COMPARATIVE STUDY)
Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198510
ENTRY DATE: Entered STN: 20 Mar 1990
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AB Susceptibility to IDDM is linked to the HLA-D locus on the short arm of chromosome 6, a region believed to be involved in the process of communication between cells which determines immune responses. Presumably an HLA molecule encoded by this region, unable to present a particular

antigenic pathogen to the immune system, is inherited. The HLA-DR locus is quite complex, however. The gene which codes for this defective molecule may be identified by a combination of use of monoclonal antibodies and cloned gene probes which specifically hybridize to various portions of this region. Investigators are searching for HLA-DR4 containing chromosomes in IDDM which show similar patterns of restriction enzyme polymorphism. Hopefully, complete structural analysis of these related sequences will provide information about the mechanisms which confer susceptibility to develop IDDM. A strong genetic component is involved in NIDDM evidenced by a high concordance in monozygotic twins. Nevertheless, there is much evidence of genetic heterogeneity. At the present time no clear cut genetic marker has been defined. The human insulin gene has been cloned and by Southern blot hybridization analysis of peripheral leukocyte DNA, the insulin gene locus is being evaluated as a possible contributor to the genetic defect. Population studies at the present time have not identified any particular polymorphic insulin allele associated with NIDDM. Population studies are complicated by heterogeneity of NIDDM, racial and ethnic differences, and heterogeneity of insulin alleles. Linkage analysis in family studies will provide an alternative approach to population studies to determine what role if any the insulin gene plays in the genetic component of this disease. Because NIDDM is heterogeneous and perhaps polygenic in nature, these linkage analyses in families with NIDDM can be extended to other genes when they are cloned such as that coding for the insulin receptor. The familial aggregation of diabetes has long been noted (see reference 1 for review). In relatives of diabetics, the prevalence ranges from 10-30%, while it is variously estimated to be between 0.1-3% in the general population. But familial aggregation of a trait may be caused either by genetic or environmental factors. One approach to dissecting the contribution of these factors is the study of concordance in twins. Pyke and associates observed that overall identical twins always show a higher concordance rate than dizygotic twins, irrespective of their age of diagnosis. Furthermore, they noted that identical twins of younger onset are often discordant for diabetes while identical twins of older onset are usually concordant.(ABSTRACT TRUNCATED AT 400 WORDS)

L2 ANSWER 48 OF 178 MEDLINE on STN
ACCESSION NUMBER: 1984234319 MEDLINE
DOCUMENT NUMBER: PubMed ID: 6329552
TITLE: Receptors, antibodies, and disease.
AUTHOR: Blecher M
SOURCE: Clinical chemistry, (1984 Jul) Vol. 30, No. 7, pp. 1137-56. Ref: 204
Journal code: 9421549. ISSN: 0009-9147.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LANGUAGE: English
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ENTRY MONTH: 198408
ENTRY DATE: Entered STN: 20 Mar 1990
Last Updated on STN: 3 Mar 2000
Entered Medline: 17 Aug 1984

AB Abnormal antibody production is now recognized as the basis of specific endocrine and neurological diseases and their complications. Among the autoimmune diseases, the best understood from a mechanistic point of view are myasthenia gravis, Graves' disease, several variants of insulin resistance, and a variant of bronchial asthma. In each of these human disorders, the clinical symptoms can be traced to the actions of antireceptor antibodies produced by a deranged immune system. The autoantibodies produced in these diseases are functionally heterogeneous. They may produce the clinical symptoms of hormone or neurotransmitter

insufficiency either by blocking the binding of these agents to target cell surface receptors or by accelerating the internalization and degradation of these receptors. In other cases, the autoantibodies may produce the clinical signs of hormone excess by mimicking the actions of the hormone, in an uncontrollable fashion. In some cases, functionally different types of autoantibodies will appear in the same patient at different stages of the disease. For all of these autoantibodies, of whatever function, assays for their presence in serum are available, in forms suitable for clinical chemists, as well as for researchers; these will be described in this review. In addition to the known anti-receptor autoimmune diseases, there are a large number of other autoimmune diseases for which there is fragmentary evidence that their clinical symptoms have an anti-receptor autoantibody etiology. Several examples of this group will be discussed, and assays suitable for establishing the presence of anti-receptor antibodies in the sera of such patients will be provided. The disorders to be considered are: type I diabetes mellitus, chronic atrophic gastritis, autoimmune Addison's disease, autoimmune hypoparathyroidism, type II pseudohypoparathyroidism, resistant ovary syndrome, connective tissue diseases, and the HLA-B8/DR3 antigen haplotype as a potential marker for autoimmune diseases of the anti-receptor type.

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STN INTERNATIONAL SESSION SUSPENDED AT 11:11:42 ON 08 JAN 2009